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MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO



Volume 17, Number 7

July, 1960

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Bibliography: (1) Scott, J. S., & Kellaway, P: *M. Clin. North America* 42:415 (March) 1958. (2) Ganoug, L. D., in Green, J. R., & Steelman, H. E: *Epileptic Seizures*, Baltimore, Williams & Wilkins Company, 1956, pp. 98-102. (3) Bray, P. E: *Pediatrics* 23:151, 1959.

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Original Articles

Arizona Medicine

Vol. 17, No. 7



July, 1960

Pima County Screening Plan *

Robert O. Lesher

Professor of Law,
University of Arizona,
Tucson

Ladies and Gentlemen:

THIS so-called Pima County Plan that Dr. Hale referred to is a fairly simple thing, both in context and in form.

We have in Tucson a panel of nine doctors and nine lawyers, and these men provide a forum for screening malpractice claims which are filed against medical doctors in Pima County. What happens essentially is this: If a member of the Pima County Bar has brought to him a claim against some Tucson or Pima County doctor for malpractice, he writes a letter to the chairman of the Bar Association's Medico-Legal Committee asking that that claim be screened by this joint panel of doctors and lawyers. That chairman then writes to the doctor and tells him a claim has been made, sends him a copy of the claimant's letter (which, by the way, spells out the claim in considerable detail) and he sets the date of a hearing and invites the doctor's attendance at a hearing and participation in this panel proceedings. A hearing date is set, and the parties are notified.

At the hearing, which is held in one of the

court rooms of the Superior Court in Tucson, the claimant puts on his case, setting his facts before the panel in whatever form he thinks appropriate to the occasion. He can do it in the form of a narrative statement by his lawyer. He can do it in the usual court room form of question and answer. He can do it by written statement if he prefers. He can use any method that he thinks appropriate.

The claimant is then subject to questioning by the doctor, who is normally present, and the doctor's lawyer, who is normally present, and this questioning is essentially in the form that you see in court, within limitations. The claimant can call witnesses if he wants to, and he can put the testimony of those witnesses on in narrative form from the witness or in question and answer form. It's up to him. The procedure is as informal as the panel knows how to make it.

When the claimant has finished with his witnesses, the doctor can put on his version of the facts in any form that he sees fit to use; and he can put on any witnesses that he has to corroborate his version of the facts.

Before the hearing is held the panel has had

*Presented before the Arizona Chapter, American Academy of General Practice, Scottsdale, October 16, 1959.

access to the hospital and medical records involved. When he wrote his letter to the panel, the claimant waived for the purposes of the panel only his confidential relationship with the doctor involved and waived his privilege as to any hospital and medical records affecting the claim. So the panel has had the benefit of all the written material available.

When the parties have finished, the panel takes the facts before it under consideration, and attempts to answer the question: "Is there in the facts presented any substantial evidence of malpractice, as that term is defined by the Arizona Supreme Court?" Now, notice please, that we do not undertake to answer, "Is there any malpractice?" We undertake to answer, "Is there any substantial evidence of malpractice?" If it answers that question "No", then the panel goes no further. But if it answers that question "Yes", it undertakes to answer a second question, which is: "Is there in the facts presented any substantial evidence of substantial injury arising out of the malpractice?" "Is there any substantial evidence" again — not, "Is there any injury" . . . but, "Is there any evidence of it?" The panel then writes its answers to these questions, to the parties involved, answering "Yes" or "No". Now the theory of the plan is this: That if the panel answers "No" to both questions, the attorney involved will not file the case in court, at least in the absence of strong over-riding considerations, and that he will at least view the panel's decision in the greatest professional good faith . . . ; on the other hand, if the panel answers the questions "Yes", the medical society undertakes to co-operate with the claimant in producing competent medical testimony to help him prepare for trial, and to help him in trial.

Now, that's all there is to the plan. It was the product of about two years of prior co-operative effort between the Bar Association and the Medical Society in Tucson, and I think that probably a climate of at least reasonable co-operation is necessary before a plan like this can even be started. We were lucky there, in that by and large, and barring the usual individual things that happen from time to time, the relationship between the two professional groups there has been a healthy one. In 1954, a committee was formed by the Bar Association to co-operate with the Medical Society in all kinds of medical legal problems, and in that same year, the Medi-

cal Society formed its own medico-legal committee. Since 1954, the two committees have worked together as one joint committee in many medico-legal problems. We have adopted in 1955 what you in Phoenix know as the Phoenix Plan, or the Cincinnati Plan, spelling out the obligations of the professional witness and spelling out the duties of the lawyer toward his doctor witness. That predated the adoption in 1957 of this Screening Panel Plan that I'm telling you about.

We were pretty well satisfied that the thing that was most on the doctor's mind all the time was the problem of malpractice. It has been the filing of malpractice claims that has caused most of what friction there is between the two professional groups. And in Tucson, we've never had any really serious problem. We get maybe four to six cases filed a year. But that's too many for the doctors, and they have a point.

We were pretty well persuaded, after looking the country over for about two years, that there wasn't any satisfactory plan then in existence. This plan that I've told you about in the beginning was the result of the co-operative effort between the Bar Association and the Medical Society to try to find some answer to this problem of malpractice claims.

If I may, I would like to read to you what the purposes of the plan are, because I want to make a point that is too often not made. I'd like to read it, right from the plan itself. The first two paragraphs of the plan are as follows:

"The fundamental purposes of this plan are two-fold, on the one hand to prevent where possible the filing in court of actions against physicians and their employees for professional malpractice in situations where the facts do not permit at least a reasonable inference of malpractice, and, on the other hand (I emphasize this) to make possible the fair and equitable disposition of such claims against physicians as are or reasonably may be well-founded."

"Both professional groups recognize that the mere filing of a malpractice action in court, however unjustified medically it may be, causes substantial harm to the reputation and the practice of the physician concerned. Both groups recognize at the same time that persons having legitimate and meritorious grievances against physicians have heretofore often encountered the greatest difficulty in substantiating their claims with expert testimony in court."

I read this to you to emphasize what must be emphasized, particularly before medical groups. The purposes of the plan are two-fold. The plan does not exist to prevent the filing of malpractice claims. It exists to prevent, if possible, the filing of medically unjustifiable malpractice claims and, equally, to insure that if the claim is justified the claimant will get a "fair shake" in court with medical testimony.

Now, does the plan work? I can't tell you. I can tell you what we've had. The plan was adopted in 1957 in February, by the Pima County Bar Association, and in May of that year, by the Medical Society there. Since the panel started to function in May of 1957, we have had 14 claims that have been referred to me, since I happen to be the Bar Association's chairman. Of those 14 claims, four have been withdrawn before the matter even got before the panel. And in all four cases, the plaintiff's attorney, once he got into the panel procedures, did enough checking to find out that he didn't have a case. Of the remaining ten, four have been withdrawn from the panel's consideration before a decision was actually reached. In one of those cases, the claimant withdrew the claim because he recognized, after doing considerable work with it before the panel, that it didn't have any medical or legal merit. And in the other three, all of which appeared, interestingly enough, to be justified claims, the claim was settled during the course of the panel's proceedings by the attorneys for the claimant and the defendant doctor. No lawsuit was ever filed. Six claims have actually gone to decision before the panel. Of those six, five have been decided for the defendant doctor, one for the claimant. This sounds at first blush as though the panel were heavily weighted in favor of the defendant. It isn't true. Nationally, the figures show that fewer than one-eighth of all malpractice claims that are actually filed in court actually result ultimately in a money recovery for the plaintiff. The doctors win more than seven-eighths. Of the six that we have had, the doctors have won five.

You may be interested to know that there have been two lawsuits filed since May of 1957 against doctors for malpractice. One of those was the claim that the panel favorably passed upon, and one was a claim that the panel did not favorably pass on but rejected. The lawyer filed anyway. There have been two claims, there-

fore, filed in court with all the attendant newspaper publicity and television publicity in Tucson, where as we believe that at least fourteen claims would have been filed had the panel not been in existence at all.

You may be interested to know where medically these claims come from. One was against a specialist in eye, ear, nose and throat work. Three were against specialists in internal medicine. Five were against surgeons, either specialized or general surgeons, and five were against general practitioners. Of the six that actually went through to a panel decision, three, or 50%, were against general practitioners.

There are three principal sources, in our experience. (Please recognize, as I'm sure you do, that our experience is pretty limited, but I think it's fair sampling of the kind of thing that will cause you trouble.) Surgery — either faulty procedures or faulty techniques — is one of the principal sources of malpractice claims. Desertion, interestingly enough, by failure to respond to a telephone call, or by failure to attend the patient when you ought to be attending to him is the most common single source of malpractice claims in our experience. We have had three claims arising solely out of this desertion, failure to attend, and one in which it was collaterally involved to a very important degree. I think, however, that the one you ought to be most concerned about isn't either of these. It's the one that is now causing us the most difficulty, and the one which I am persuaded is going to cause you in the medical profession the greatest difficulty in the years ahead. That is the failure to warn your patient of the possible consequences, however, remote, of the procedure or therapy or drug with which you are treating him. You can reduce this thing to absurdities. On the one hand, the plaintiff says "Well, now, if I had known that a particular operative procedure might conceivably result in permanent paralysis I would never have consented to that particular procedure, however justified medically in my case it might have been." And he's got a point. On the other hand, the doctor replies, "We have to fight one war at a time. We have to treat the man's present condition with whatever procedures or techniques or drugs are best fitted to the treatment of that condition. And if we have to go ahead and warn every patient of all the remote, highly speculative and highly contin-

gent possible consequences of everything we do, not only will we never treat a patient, but the actual warning may in more cases than not do more harm than the therapy itself would have done."

I think that among the doctors who have participated in Tucson on the panel and who are closely allied to this Pima County Plan, so-called, it is this kind of case that is causing the most loss of sleep. And it's a real problem. I don't know what you're going to do about it. I don't know that there is any answer.

The problem is with you. The failure to warn has caused three cases to be brought before the panel out of fourteen. One of those cases is one which subsequently went on to court and is pending in the Superior Court of Pima County now against the doctor, a drug corporation and various assorted paramedical personnel. And since I'm involved in it, I can't comment on it except to tell you that it is pending. This, over the nation right now, should be the greatest single cause of medico-legal concern to the medical profession.

I might point out to you that in most of the claims that have come before us, practically without exception, the claim itself, that is, the claimant's dissatisfaction with the doctor, has been caused directly or indirectly by some remark made by either medical or paramedical personnel. Now, it figures, gentlemen, there is probably going to be a malpractice suit filed, whatever the merits of it, if the man who has just performed an operation walks out of the operating room and in the presence of the claimant's husband says, "Boy, I sure botched that one!" And it also follows that there's going to be a claim — against somebody — if the first time you examine a new patient you say to that patient, "My good God, what butcher has been treating ou?" Now, neither of those are fictitious illustrations, amazing as it may sound to you. They have already occurred within the very limited experience of our panel. You can trace every claim, with few exceptions, to ill-advised remarks gratuitously made by medical and paramedical personnel.

What can you do to avoid a malpractice lawsuit? The only frank answer I can give you is — be lucky. I only know one good malpractice story, and I keep hopefully telling it in the thought that some of you may not have heard

it from Dr. Chesson, of Tucson, which I think illustrates this point. There was a doctor up in Burlington, Vermont, named Smith, who had practiced there for many years and was a pillar of the medical community. He had a patient in the advanced stages of a degenerative disease. The patient was a hard-headed Yankee and a realist and wanted to know what was going to happen to him. The doctor told him that he was going to die, and very shortly. The plaintiff was a man who wanted his affairs to be meticulously in order, and he said, "All right, but when?" The doctor said, "You're going to die in a month." So the New England farmer went out and had a tombstone prepared on which were engraved his name, the date of his birth and the date of his anticipated death. And the day of his anticipated death came and went. Because Dr. Smith's skill had kept him alive over the month, he sued Dr. Smith in malpractice for the value of the ruined tombstone, since the date had come and gone, and the stone could no longer be used. The case went to trial before a jury, and the claimant won the value of the tombstone. I have said before that the only way to avoid malpractice claims is to be lucky. Now, as it happens, in that case, Dr. Smith was a highly intelligent man, and from that day forth in Burlington, when Dr. Smith said you were going to die, you died.

I commend it your attention.

Has the Pima County Plan worked? I can't give you an answer. We do think that in the two years plus that we have worked with it, it hasn't yet failed. Whether it will work over an extended period of time, we frankly don't know. We think it may. Thank you.

Question from the floor: I have reference to, you mean, that once the doctor has accepted the patient, then he is responsible for the particular telephone call or that he is too busy and can't get there.

Mr. Lesher: Yes, sir.

Questioner: But, I would like this clarification — if the patient calls the doctor and gives symptoms of the child — and the doctor has never seen that child — and refuses to give any advice unless the mother brings the child to the office. This is not desertion?

Mr. Lesher: I would have to make a two-step conclusion there. One, I think is justified. The conclusion is that in that case the patient-physi-

cian relationship had never been established. That's a question of fact entirely. From the circumstances that you gave me, I'd say probably there had never been this relationship established. And I can tell you as a matter of law, that if that is true, if the relationship of doctor and patient has never been established, then you cannot be guilty of malpractice in any form toward that particular patient.

Question: Suppose the doctor had seen this child six months before so that the doctor-patient relationship had been established, and now six months later, the mother calls and wants advice over the phone — for a condition which had nothing to do with the condition for which the doctor saw the child patient six months before. And the doctor says, "I'm sorry, but I can't advise you over the phone. Unless you bring the child in, I will not give you any advice." Then the mother does not bring the child in . . . Can you answer that?

Mr. Lesher: I can tell you that the exact fact situation, except that the patient was not a child (it was a mature man with a heart condition) has come before the panel. The difficulty with things like this is that they are questions of fact, and you have a tendency to get conflicting versions of the evidence. And, one thing that this panel can't do is sit as a jury. If this panel starts sitting as a jury, you're dead, gentlemen, because no plaintiff's lawyer in his right mind is going to submit his medico-legal case to a jury composed wholly of physicians. It sits, more or less, . . . and I don't know how familiar this language will be to you . . . it sits in a position analogous to that of a trial judge ruling on a motion for a directed verdict. Now, that's the best I can do for you. In your particular case, the chances are that there was no physician-patient relationship established. But more importantly, in that situation, even had there been a physician-patient relationship, it doesn't necessarily follow that the refusal to treat over the telephone is malpractice. As a matter of fact, it may be malpractice to *treat* over the telephone. That is the opinion of many, I think of most medical men that I know, and I've heard on the

subject. Even when you establish the relationship — if you give me as a matter of fact that the person who calls is the doctor's patient — you still have this question: Is it malpractice to do what the doctor did? Is it a deviation from the accepted standard of care in the community? Now, generally, from what you tell me, I would say you were probably going to get the answer from your doctors that that is not a deviation from the standard. You don't have a malpractice case just because you have the relationship existing. There must also be, in addition, the crucial fact that the doctor has done something he should not have done, or he has omitted to do something that he should have done, and what he should or should not have done depends on the standard of medical practice in his own community.

Question: In the work that you have done so far, have you run into the problem of very complete hospital records being used against the doctor himself?

Mr. Lesher: Yes, sir.

Questioner: I ask you this because very complete hospital records sometimes change for a man testifying against himself when he writes that record and isn't it a known fact if you avoid writing anything down on a record as the hospital requires you to do that you might actually save yourself a *lawsuit* on occasion?

Mr. Lesher: I can conceive of circumstances in which that is true, sir, but I will tell you this. Our experience has been that the greatest safeguard to the careful and conscientious doctor is the maintenance of complete and adequate records. Now I would say to you "If you are a bad doctor, for heaven's sake, don't keep records!" On the other hand, if you have done your job medically, and the plaintiff's case against you is hearsay, as it usually is, or misinformation, as it very often is, then the maintenance of complete records, not only in the hospital but in your office, is the greatest safeguard you can have. Our panel has thrown out more cases against doctors simply because the doctors' records indicated specifically and clearly that there wasn't any claim, than for any other reason.

The total investment in property and endowment of America's schools, churches, hospitals, and other gift supported institutions now totals \$48 billion according to The American Association of Fund-Raising Counsel, Inc.

Cervical Smears: Some Practical Considerations*

Malcolm B. Dockerty, M.D.

Section of Surgical Pathology
Mayo Clinic and Mayo Foundation†
Rochester, Minnesota

WHEN MacCarty, in the 1920's, was busy studying the cytology of malignant cells, and Broders was searching for examples of what he was later to call "in situ carcinoma," pathologists were not ready for the concept that cancer "without roots" was an entity. It remained for Papanicolaou, in the early 1940's, to prove that carcinoma cells which had been shed or exfoliated from malignant neoplasms growing on a free surface could be identified as such by a study of smears made from the zone of involvement. Most important was his demonstration that material shed from in situ tumors was fully as diagnostic as that obtained from the surfaces of advanced lesions.

This was a new method that could be used for the detection of early malignant lesions, and a stampede for the discovery of such tumors ensued. Every conceivable bodily orifice was swabbed, scraped, washed, siphoned, aspirated, brushed or massaged for its maximal yield of exfoliated cells, some of which might be malignant. Studies were conducted in which the efficacy of smears was compared with that of biopsy. The problems of "false positive" and "false negative" smears were much discussed. Theoretic and actual relationships between in situ and clinical carcinomas were explored statistically and otherwise. Terms like "pro cancer" were born in an attempt to explain the occurrence of "suspicious" smears of dubious cellular parentage. A sifting of much literary chaff from this exploratory period reveals, among other grains of truth, the fact that cervical carcinomas

can be detected through a study of smears, and that such studies give almost 100 per cent positive results during the *in situ* stages of such lesions.

THE IN SITU CONCEPT

The poor results attending attempts to cure malignant tumors of the cervix are known to all. The outlook is such that perhaps one woman in five who is suffering from this dread disease has a life expectancy of 10 years. In this country alone, some 18,000 women, many of them young, die annually from its effects. Yet many investigators are convinced that each overt carcinoma of the cervix is preceded by an *in situ* stage lasting from 5 to 20 years. An imposing number of these lesions have been followed by design or by accident from the *in situ* stages into the invasive and fatal forms; *in situ* and invasive cervical carcinomas have been observed side by side; patients whose *in situ* cervical carcinomas have been treated by minor operations, such as cauterization or conization, have invasive carcinoma so rarely in later years that the existence of a sequential relationship appears inescapable. For doubting Thomases, the fact remains that 5 per cent of the invisible cervical cancers discovered by the use of smears prove to be dangerous infiltrating growths when subjected to complete examination at the time of hysterectomy.

SMEAR VERSUS BIOPSY

I believe that there is no comparison between the efficacy of smears and that of routine biopsy methods in discovering early carcinoma of the cervix. From 1932 to 1946 at the Mayo Clinic, where the entity of *in situ* carcinoma was named

*Read at the meeting of the Arizona Division of the American Cancer Society, Phoenix, Arizona, January 14 to 16, 1960.
†The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

and described and where we were perhaps performing unnecessary biopsies in the search for such lesions, my colleagues and I found 32 cases. During the year 1959 alone, using smears in a screening procedure on the same cross section of clinic patients, we uncovered no less than 160 cases. Currently, six of every 1000 normal-appearing cervices prove to be cancerous when examined cytologically.

The detection of these early lesions, which are eminently curable by more or less conservative surgical procedures, is no longer an expensive program capable of being undertaken only in large and well-equipped medical clinics. Every doctor's office can, and should be, a cancer-detection center in which the making of cervical smears is an integral part of all routine pelvic examinations. It is a test concerning which better-informed patients are well aware. To deny it to them, and possibly to others as well, is perhaps to neglect an extremely useful laboratory examination for malignant tumors.

The comments thus far have been confined to carcinoma of the uterine cervix. What about the detection of malignant tumors of the endometrium or even the vulva by cytologic study of smears? It is my opinion that, in attacking the problem of carcinoma of the cervix in the manner to be described, one is achieving the greatest possible yield of positive results, considering the time and effort required to maintain a large screening program. Carcinomas of the uterine fundus are rarely asymptomatic; they occur in older women, and their routine detection by curettage leads to a satisfactory rate of cure, since the lesions usually are well differentiated and slowly growing. The early discovery of malignant tumors of the vulva, vagina, fallopian tubes and ovaries likewise does not depend on a study of smears.

TECHNIC OF MAKING SMEARS

A satisfactory and efficient method of making smears directly from the cervix rather than from the vaginal pool is as follows. The instructions to the patient are simple. She should be directed not to take a douche during the 24-hour period before the smears are made. Any procedure that washes away desquamated cells is bound to increase, however slightly, the likelihood that these cells will not find their way to the smeared slide.

The following directions should be carefully

observed by the clinician:

1. Do not use lubricant on the speculum, since the presence of extraneous material on the smeared slide makes examination of the latter impossible. The speculum may be warmed and moistened with tap water.
2. Gently wipe excessive secretions from the external cervical os with a cotton applicator.
3. Using firm pressure, rotate the special wooden spatula around the external os, being certain to obtain scrapings from the squamocolumnar junction.
4. Smear the scrapings quickly and evenly on a glass slide and, without a second's delay, immerse the slide in a jar of fixative (95 per cent alcohol or an ether-alcohol mixture). Under no circumstances permit the secretions to dry on the slide prior to fixation.
5. Label the slide and container accurately. If the slide is to be mailed out of town, allow 15 to 20 minutes for fixation. If it is to be examined locally, transport it immersed in the fixative until it is ready for staining.
6. For maximal yield, make smears on all women more than 25 years of age and from those younger women who have abnormal-appearing cervices. Avoid taking smears while the patient is actively menstruating.
7. Do not biopsy the cervix at this time. Above all, carefully unplug the office cautery.

The materials needed for making cervical smears are indicated in the accompanying figure.



Equipment needed for making cervical smears for cytologic study.

ROLE OF THE PATHOLOGIST

The further processing and the interpretation of the smears belong in the province of the pathologist, whose role in the detection program is

predicated on three assumptions, namely that he (1) believes in the entity of *in situ* carcinoma, (2) is familiar with the interpretation of smears and (3) has help. Each of these items requires clarification.

It is utterly useless and twice as confusing to embark on a screening program using smears to detect early carcinoma of the cervix if tissue taken at biopsy from patients with positive results of cytologic study of smears is diagnosed routinely as showing chronic cervicitis, dysplasia, metaplasia or basal cell hyperactivity. *In situ* carcinomas, uncovered by the smear technique, should comprise 95 per cent of the total. It is thus well to be sure of the man behind the microscope.

Difficulties concerning pathologists who may be unfamiliar with interpretation of smears are being overcome by the American Board of Pathology, whose requirements are such that its diplomates must be familiar with cytologic methods. Many of the older pathologists, through self-teaching, careful study of the voluminous literature and attendance at courses on exfoliative cytology, have learned how to become key members of the screening team.

The problem of help for a busy pathologist continues as the biggest stumbling block in instituting these valuable screening programs. Each cell in every slide must be individually viewed and appraised, and a minimum of 15 minutes is required to screen a single slide. Making two slides on each patient merely doubles the magnitude of the task without adding significantly to the positivity of the end results. Cytologic examination of 25 to 30 slides by one person each day approaches the maximum of visual endurance.

The use of trained technicians as cytologic scanners provides the most logical solution to this bottleneck. After three months of special training, such technicians are capable of staining and scanning smears at the rate of 5000 per year. About 4800 of these routine smears will be unequivocally normal. An additional 100 will contain cells that the technician has marked and that will cost the pathologist many hours of toil and sweat before he gingerly consigns them to the negative category. There let them rest while the remaining 100 smears are considered.

It is well to re-emphasize at this point that all these smears are being taken from cervices that are for the most part grossly normal. Phy-

sicians should not waste time and effort by taking smears from lesions that appear to be neoplastic and for the diagnosis of which routine biopsy methods alone are indicated. Only at the initiation of the program does one need to accumulate data from smears on known clinically malignant lesions. Interestingly enough, smears made from such tumors, which are frequently infected and necrotic, are often less clearly positive for malignant cells than are preparations made from the *in situ* precursors.

FURTHER STUDIES

Let us return to the worrisome residue of 100 smears. These will be reported variously as being "positive" or "suspicious" for malignant cells. The follow-up task of uncovering the tissue source of these cells goes back to the physician and his examining table. Using Lugol's solution as an aid in delineating the squamocolumnar junctional zone, the area in which most cervical carcinomas have their beginnings, he removes from this zone two to four pieces of tissue cut deeply enough to ensure proper orientation when they are embedded in paraffin. These pieces of tissue are placed in a small bottle containing a 10 per cent solution of formaldehyde and are sent to the laboratory. The taking of tangential "shavings" in lieu of such visible wedges is to be condemned. Minor bleeding may occur at this point, but anyone experienced enough to perform cervical biopsy knows how to bring about its arrest without committing the unpardonable sin of using the office cautery at this juncture. If study of the smear gives positive results, carcinoma of the cervix is almost certainly present. However, the clinician may have missed it in the biopsy samples. To cauterize the cervix at this point is, in many instances, to destroy the very evidence that one is attempting so carefully to assemble.

In perhaps 50 of these 100 worrisome cases, the pathologist within 24 hours reports the discovery of carcinoma, apparently *in situ*, in the material obtained at biopsy in the physician's office. In 25 additional cases, he may be satisfied that the presence of basal cell hyperactivity accounts adequately for what he has reported previously on the smear as suspicious cells. While happy in these instances that office biopsy was performed and the expense of hospitalization for conization avoided, he probably will recommend that these 25 patients be followed

with yearly examinations of smears. Perhaps in one or two patients he may find that the invisible carcinoma was in fact an infiltrating lesion; again, these patients have been saved the expense of a surgical operation, for irradiation may be the treatment of choice for such early but infiltrating cancers. In the remaining group of about 25 patients, he finds nothing at this stage to explain the positive smears.

Conization Biopsy and Further Treatment. — The 75 to 77 patients whose cervices require further and immediate investigation are hospitalized for conization biopsy. This includes the 50 to 52 patients whose specimens disclosed carcinoma and the 25 in whom biopsy failed to reveal the source of the "positive" smears. Here, a word of caution must be addressed to the surgeon. Some of the carcinomas in this latter group of patients are so small that they have been missed during office biopsy. Too vigorous scrubbing of the cervix during the course of preoperative preparation of the vagina may cause the pinhead malignant focus to find a resting place in the hamper of soiled linen rather than under the objective of the microscope. Similarly, the preliminary performance of an utterly useless and uninformative dilation and curettage at this juncture definitely is contraindicated. What the pathologist is seeking in these cases, sometimes prayerfully, is a generous cone of cervical tissue undisturbed by any preliminary manipulations. This cone should extend from a base at least 1 cm. beyond the squamocolumnar junctional zone to an apex at the endometrial cavity. It should be removed in one piece with a sharp scalpel. Under no circumstances should the cone be procured by a curet or other instrument designed to "piece-meal" the tissue.

In our laboratory, because of the routine use of fresh frozen sections, we can cut, stain, mount and examine material from 12 sections of these cones in as many minutes and report the findings to the surgeon. If the frozen-section technic is not available, it may be necessary to defer diagnosis for 24 hours or more until the material has been prepared by the paraffin method. In either instance, the pathologist may be expected to discover one or more foci of cervical carcinoma in the vast majority of cases. More than 90 per cent of the lesions will be *in situ*; thus, if conization of the cervix happens to be the

surgeon's favored treatment, the patient will not need another operation. Some surgeons have had the experience of encountering recurrent carcinoma *in situ* after such minor sacrifice of tissue and, therefore, may elect to perform vaginal hysterectomy. About 5 per cent of the conized lesions will, surprisingly enough, reveal early carcinomatous infiltration, and the problem of radiation therapy versus radical hysterectomy will present itself. Residual neoplasm will not be detected in the surgically removed cone in perhaps 25 per cent of the cases in which biopsy done in the office revealed carcinoma *in situ*. There are various reasons for this; the tissue taken for biopsy included all of the tumor, the cervix perhaps was touched with the cautery to control bleeding, the uterus was curetted prior to conization, or the pathologist perhaps did not examine the cone thoroughly enough.

Curettage. — Finally, subsequent curettage is necessary for those patients in whom negative results are obtained on both biopsy and examination of the excised cone. This must be done in order to rule out the possibility of endometrial carcinoma before the smear is finally and sorrowfully classified in the categories of "false positive" or "false suspicious." It is a rare pathologist who does not harbor both these skeletons in his closet.

SUMMARY AND CONCLUSIONS

Routine study of cervical smears enables pathologists to detect an extremely high proportion of cervical carcinomas when they are in an asymptomatic, early and eminently curable stage.

Incipient malignant tumors of the uterine fundus, by contrast, give warning symptoms. Study of smears from the vaginal pool for the detection of early fundal carcinoma is somewhat superfluous, and the method misses as many as 20 per cent of the more dangerous cervical lesions.

The pathologist who reports results of study of all cervical smears as either positive or negative is missing as many as 20 per cent of early lesions, which should have been discovered after they had been placed in a category labeled "suspicious cells present."

These early unsuspected lesions are extremely diminutive, and the hunt for them must be conducted as a cooperative venture, with observance of seemingly unimportant details.

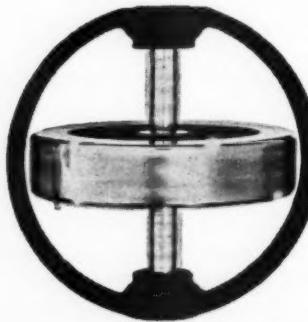
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References: 1. Feinberg, S. M.; Feinberg, A. R., and Fisherman, E. W.: *J.A.M.A.* 167:58 (May 3) 1958. 2. Epstein, J. I., and Sherwood, H.: *Conn. Med.* 22:222 (Dec.) 1958. 3. Friedlaender, S., and Friedlaender, A. S.: *Antibiotic Med. & Clin. Ther.* 5:215 (May) 1958. 4. Segal, M. S., and Duvencu, J.: *Bull. Tufts N.E. Medical Center* 4:71 (April-June) 1958. 5. Segal, M. S.: Report to the A.M.A. Council on Drugs, *J.A.M.A.* 169:1063 (March 7) 1958. 6. Hartung, E. F.: *Floride Acad. Gen. Practice* 8:18, 1957. 7. Rein, C. R.; Fleischwager, R., and Rosenthal, A. L.: *J.A.M.A.* 165: 1821 (Dec. 7) 1957. 8. McGavack, T. H.: *Clin. Med.* (June) 1959. 9. Freyberg, R. H.; Berntsen, C. A., and Hellman, L.: *Arthritis & Rheumatism* 1:215 (June) 1958. 10. Hartung, E. F.: *J.A.M.A.* 167:573 (June 21) 1958. 11. Zuckner, J.; Ramsey, R. H.; Cacioli, C., and Gantner, G. E.: *Ann. Rheum. Dis.* 17:398 (Dec.) 1958. 12. Appel, B.; Tyc, M. J., and Leisbohn, E.: *Antibiotic Med. & Clin. Ther.* 5:716 (Dec.) 1958. 13. Kalz, F.: *Canad. M.A.J.* 79:400 (Sept.) 1958. 14. Mullins, J. F., and Wilson, C. J.: *Texas J. Med.* 54:648 (Sept.) 1958. 15. Shelley, W. B.; Harun, J. S., and Pillsbury, D. M.: *J.A.M.A.* 167:959 (June 21) 1958. 16. DuBois, E. L.: *J.A.M.A.* 167:1590 (July 26) 1958. 17. McGavack, T. H.; Kao, K. T.; Leake, D. A.; Bauer, H. G., and Berger, H. E.: *Am. J. M. Sc.* 236:720 (Dec.) 1958. 18. Council on Drugs: *J.A.M.A.* 169:257 (January) 1959.



LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

Cerebral Cysticercosis *

Dr. Guillermo Hernandez Hernandez

NEUROLOGICAL ASPECTS

CEREBRAL cysticercosis, a disease found only in man and not easily identifiable clinically, reaches, in certain classes in Mexico, a rather constant frequency thus creating a considerable number of patients. This disease predominates among the rural and lower middle classes because of the prevailing poor hygiene. The majority of the patients reported here were seen in the Neurological Service of the Civil Hospital in Guadalajara.

To briefly review the method of contamination and the life cycle of this parasite we must remember that it is taken into the body by the ingestion of water, other liquids, or solids which are contaminated with the embryos of the *taenia solium* which have been excreted by individuals who are actually infected. After being ingested and subsequent to their absorption from the gastrointestinal tract, these embryos, or ova, undergo their transformation into a cystic larval stage in whichever organ they lodge, particularly in the muscles and nervous system. The reason

for this predilection is not understood. Once established in the nervous system they are designated as *Cysticercosis Cellulosae*, to whom man plays the role of definitive host. Autoinfestation is also possible when an individual swallows his own infested excretion because of poor hygiene habits. The *Cysticercosis Cellulosae* varies in size from 2 to 30 mms., with a very thin, translucent membrane which allows visualization of the colorless fluid within the cyst. In the interior of the latter it is possible to see the scolex with its crown of hooks in an invaginated position. The *Cysticercosis* may present itself in any of the following forms: Cystic, Racemos or Calcified.

Cerebral cysticercosis is more common in the male sex in a ratio of 1.3 to 1. It is most frequent between the second and fourth decades; however, it occasionally is seen in infancy. Several statistical studies have been conducted in various parts of Mexico, and their conclusions, with slight differences, coincide.

Recently the Department of Pathology of the General Hospital in Mexico City made a survey of 1770 routine autopsies in which the following incidence of intracranial space-occupying lesion was reported:

*Presented at the Fourth Annual Meeting of the Medical Society of the United States and Mexico, December 3, 1959, Phoenix, Arizona.

Table 1
Series of 1770 autopsies (Dr. R. Perez Tamayo)

Type of Lesion	Total No. of Cases	% of total series	% of space-occupying lesion	% of pseudo tumors
Unclassified space occupying lesion	147	8.3%	100%	—
True neoplasms	63	3.5%	42.8%	—
Pseudo tumors	84	4.7%	57.1%	—
Cerebral Cysticercosis ..	44	2.4%	29.9%	53.3%

We can conclude from this study that nearly one-half of the space occupying lesions of the central nervous system were of a pseudo-tumoral nature and of these approximately one-half showed signs of cysticercosis. The rest of the pseudo-tumoral lesions were made up of tuberculomas, abscesses, vascular lesions, and one case of cerebral hemorrhage.

In the study of 44 cases of cerebral cysticercosis the following localizations are reported.

Table 2

Localization	No. of cases	% of total cases of Cerebral cysticercosis
Cerebral hemisphere	28	63.6%
Cerebellum	5	11.3%
Fourth ventricle	5	11.3%
Aqueduct of Sylvius and fourth ventricle	1	2.3%
Meninges	1	2.3%
Elsewhere in central nervous system	4	9.1%

In our own series consisting of 15 cases treated surgically and verified by pathological studies we classified the following localizations and types.

Table 3

Localization	Racemose	Cystic	Calcified	Total
Hemisphere	0	2	3	5
Fourth ventricle	0	3	0	3
Fourth ventricle aqueduct	4	2	0	6
Cerebellum	0	1	0	1
Grand total.....				15

The clinical manifestations may be purely neurological, exclusively psychiatric, or more frequently a combination of both types. In this discussion we will discuss the neurological manifestations only.

The symptomatology ordinarily is in relation to the localization, the form in which it presents itself and the number of parasitic elements. It would be convenient therefore to make an anatomical-clinical classification which will help us to interpret the signs and symptoms of the disease. We believe that the classification which we have followed in relation to the localization of the parasite is very useful and practical.

Table 4
Anatomical-Clinical Classification
Cerebral cysticercosis
(Dr. R. del Cutoe)

Cerebral parenchymatous cysticercosis	Localized	{ Nodular Cystic
Ventricular-subarachnoid cerebral cysticercosis	Dissiminated	

This classification establishes two fundamental forms: the cerebral parenchymatous cysticercosis and the ventricular-subarachnoid cerebral cysticercosis. Although we may find variations in each of these groups, there is a certain constancy in their clinical pictures which helps to distinguish one from the other.

In the cerebral parenchymatous form the parasites reach the cerebral substance through the cerebral arteries and acting as foreign bodies they produce an inflammatory reaction in the surrounding tissues. As their localization usually is in the cortex of the cerebral hemisphere one of the first manifestations of their presence is a focal epilepsy. Cerebral parenchymatous cysticercosis may manifest itself in two ways, the localized cerebral parenchymatous form in which the invasion is made by a small number of parasites, and the disseminated parenchymatous form which is most frequent in children and in which the parasites are discovered by simple x-ray studies of the cranium which shows them up as multiple nodular calcifications, which may be cortical or subcortical, in both cerebral hemispheres. In these cases we note a predominance of manifestations of intracranial hypertension with intermittent headaches, visual impairment together with incipient stages of papilledema, vomiting, etc. At the same time we may have mental derangement, visual and auditory hallucinations and in the later stages of the disease, stupor and delirium.

The localized parenchymatous cysticercosis may exhibit two forms: Nodular and cystic. The nodular form presents palpable or visible parasitic nodules situated on the cerebral cortex. Its usual clinical manifestation is in the form of focal convulsive attacks which are persistent and very resistant to treatment. In many cases we can confirm the existence of a cortical epileptic focus.

In the cystic form the parasites are in a large subcortical vesicle, having its own membrane, which is thin and easily separated from the cerebral tissue in which it lies. The vesicle contains liquid and is full of cysticercus cysts and concretions of calcified material. As the vesicle increases in size it may cause manifestations similar to a cerebral tumor with radiological and clinical signs which lead us to believe in the existence of such a tumor. The clinical picture may be one of cranial hypertension or one of localization, these cases being more likely to exhibit mental disturbances.

Finally, we have the ventricular-subarachnoid cerebral cysticercosis in which the embryos of the parasite probably reach the brain through the intraventricular choroid plexus arteries. They

float into the ventricular cavity and later from the ventricular system they migrate to the subarachnoid spaces at the base of the brain, thus blocking the ventricular system at the level of its natural narrow channels (foramen of Monro, aqueduct of Sylvius, etc.). At the same time their presence in the basal cisterns produces an inflammatory reaction with an arachnoiditis and an impairment of the absorption of the spinal fluid, thus favoring the persistence of the block and an increase in hydrocephalus. With these alterations in the spinal fluid circulation it is easy to see that the symptomatology is that of increased intracranial pressure with progressive internal hydrocephalus which may become intermittently acute. Under these conditions there may exist also cerebellar symptoms and paresis of various cranial nerves due to the basal arachnoiditis. This type of lesion, in our experience, and in the experience of other authors, is the most frequent and its evolution tends to be more rapid than in the other varieties. The predominant clinical manifestations consist of visual changes, severe headaches which may be intermittent at first and later become continuous, vomiting and eventually mental changes such as amnesia, disorientation, psychomotor retardation and depressive pictures which are almost dementias. The cerebellar disturbances are mainly in equilibrium and gait. Tremors are frequent as are the lesions of some of the cranial nerves.

From what has just been said we can see that there is no one easily identifiable clinical picture and that the different forms we have described may exist simultaneously in the same patient.

However, in the last variety described, the symptomatology is more or less constant and we can suspect its presence when we realize that the intracranial pressure and posterior fossa changes are usually seen in the adult patient. In the other form, the parenchymatous, we have arrived at the conclusion that every adolescent patient arriving to adulthood with delayed appearance of convulsive crises and who at the same time comes from an environment hygienically deficient most certainly is a victim of this serious parasitosis.

The paraclinical diagnostic aids used in this disease are a great help and do not differ much from the methods used in other diseases of the central nervous system. First of all we have the dynamic and chemical study of the spinal

fluid which includes the complement fixation reaction of Dr. Nieto, a laboratory test very specific for this disease and which gives us a low percentage of false positives. Modifications in the spinal fluid such as an increase in proteins, diminished glucose, pleocytosis, (principally lymphocytic), and in many cases a notable presence of eosinophiles, may, in the presence of the before-mentioned symptomatology, make us think of a cysticercosis. Also, among the routine examinations we do on these patients is the simple x-ray study of the cranium which may illustrate the presence of calcified lesions, single or multiple, on the cerebral cortex or in the cerebral parenchyma, or radio-opaque images which resemble tumors.

A negative electroencephalographic examination in a patient who has localized convulsive manifestations in our medium makes us think that the parasite is present. Sometimes, but not frequently, there may be cortical dysrhythmic alterations.

In those cases in which the dominant manifestations of cerebral lesions are intracranial hypertension with or without convulsive manifestations or with manifestations of the cerebellar type, the best diagnostic aid is ventriculography, which will show the existence of a large, usually obstructive hydrocephalus, and, occasionally, the intraventricular visualization of the parasitic vesicles fastened to the ventricular walls.

If there are no contra-indications of increased intracranial pressure in patients having convulsive manifestations with a possible cysticercus etiology, the use of the pneumoencephalograph by one of the approved methods is very accurate as it can illustrate any displacement or ventricular modification caused by the parasite's presence.

TREATMENT

The treatment of this disease is far from satisfactory and in many cases we must be content to see only a slight improvement in the patient's condition.

Considering that the disease is transmissible, the best and most efficient treatment would be the prophylaxis by means of the application of adequate hygienic measures.

From a therapeutic standpoint there have been

described a number of curative methods using antiparasitic medicines such as oleoresin of aspidium, antimony and I-diethyl-carbamyl-4-methyl piperazine (Hetzran) all of which give equivocal results. The use of anticonvulsants is indicated when seizures constitute a major symptom. Some have advised the use of Roentgen therapy due to its anti-inflammatory properties more than for its possible action over the parasite.

Finally, the surgical therapy of this disease offers one more method which can be used in these patients and the results, although variable, are acceptable. Its indication would have to be determined for each case and there would be some who would not benefit from any surgical treatment.

In general, by surgery we would attempt to extirpate the parasitic formations which by their localization give manifestations of cerebral injury which we have already noted and which by means of paraclinical investigation have been clearly identified in their cortical, sub-cortical or subarachnoid location.

Thus, for example, in a case in which there exist manifestations of a focal epilepsy once that we have verified the existence and localization of the parasites we should do a surgical intervention with the object of removing the parasites, if possible, which are causing the cerebral lesion.

In other occasions, when there are signs and symptoms or cranial hypertension by obstructive hydrocephalus due to the presence of the parasite in the ventricular system we should use one of the surgical drainage shunt procedures now in use.

When we see that the cisterna magna is not obstructed we do a ventricular-cysternal shunt (Torkildsen) which has given us good results. If it is not possible to do this we do one of the other drainage operations such as a ventricular-pleural, ventricular-peritoneal, etc., considering beforehand the limitations of these methods and taking into consideration also the possibility of a block due to the presence of parasites.

Recently in some cases with this type of alteration an attempt has been made to use the continuous ventricular drainage temporarily making use of the ventriculostomy used for the air studies. Some authors have reported an improvement in their patients using this method.

Cisticercosis Cerebral

Dr. Guillermo Hernandez Hernandez

ASPECTOS NEUROLÓGICOS

A CISTICERCOSIS Cerebral, padecimiento singular en el hombre, de difícil identificación clínica, alcanza, en ciertos medios de nuestro país, una frecuencia constante que determina un considerable número de pacientes. Predomina esta enfermedad en el medio rural por razones de carencia de higiene y se localiza como es natural en los núcleos de población de escasos recursos económicos, de los que proceden la mayor parte de los enfermos que acuden a la consulta neurológica del Hospital Civil de Guadalajara, en donde casi la totalidad de los casos han sido vistos.

Recordaremos brevemente que este padecimiento se adquiere con la ingestión de agua o ciertos alimentos contaminados con los embriones de la tenia solium que excretan los individuos con esta parasitosis. Estos embriones al desarrollarse adquieren la forma quística larvaria y al pasar la barrera intestinal son conducidos por el torrente sanguíneo hacia diferentes partes del cuerpo, principalmente músculos y cerebro. Lo más frecuente es encontrarlos tan sólo en una de estas dos localizaciones sin saberse la razón. Una vez situados en el tejido cerebral se les designa con el nombre de Cisticerco celulosae, del cual el hombre viene a ser el

huésped definitivo. Puede haber una verdadera autoinfestación al ingerir el individuo embriones de su propio parásito después de la defecación, por no observar reglas precisas de higiene. El Cisticerco celulosae se presenta en forma quística de dimensiones variables, desde 2 a 3 mm. a 2 a 3 cm. con una membrana delgada, translúcida, que permite ver el contenido líquido claro e incoloro del quiste. En su interior se observa, invaginado, el éscolex con su corona de ganchos. El cisticerco puede adoptar cualquiera de las siguientes formas: Quístico, Racemoso o Calcificado.

La Cisticercosis Cerebral es más común en el sexo masculino en una relación aproximada de 1.3 a 1. Es más frecuente entre la segunda y la cuarta décadas de la vida, aunque también ocasionalmente se la encuentra en la infancia. Disponemos actualmente, aunque en forma aislada, de numerosas experiencias estadísticas en nuestro país, y las conclusiones de los diferentes observadores con escasas diferencias, son coincidentes.

No hace mucho en la Unidad de Patología del Hospital General de la Ciudad de México, se llevó a cabo una revisión de 1770 autopsias en casos no seleccionados de ambos sexos, con los siguientes resultados:

Tipo de Lesión	Tabla 1 Serie de 1770 autopsias (Dr. R. Perez Tamayo)			
	Total de casos	% de la serie total	% de lesiones ocupantes	% de lesiones pseudotumorales
Total de lesiones ocupantes	147	8.3%	100%	—
Lesiones tumorales	63	3.5%	42.8%	—
Lesiones pseudotumorales	84	4.7%	57.1%	—
Cisticercosis cerebral	44	2.4%	29.9%	53.3%

Por tanto puede decirse que en esta serie cerca de la mitad de los casos de lesiones ocupantes del nervioso central fueron de naturaleza pseudotumoral y de éstas aproximadamente la mitad presentaron Cisticercosis. Las otras lesiones pseudotumorales se constituyeron en tuberculomas, abscesos, lesiones vasculares y un caso de hemorragia cerebral.

En los 44 casos de cisticercosis de esta serie tenemos las siguientes localizaciones:

Tabla 2

Localización	Número de casos	% total de casos de cisticercosis cerebral
Hemisferios cerebrales	28	63.6%
Cerebro	5	11.3%
Cuarto ventrículo	5	11.3%
Acueducto de Silvio y cuarto ventrículo	1	2.3%
Meninges	1	2.3%
Otros lugares del sistema nervioso	4	9.1%

En nuestra experiencia con 15 casos tratados quirúrgicamente y comprobados por estudios anatomo-patológicos, hemos dado con las siguientes localizaciones:

Tabla 3

Localización	Racemoso	Quístico	Calcificado	Total
Hemisferios	0	2	3	5
4º ventrículo	0	3	0	3
Acueducto y 4º ventrículo	4	2	0	6
Cerebelo	0	1	0	1
Total				15

Siendo de todos conocida la manera de infestación parasitaria en el hombre así como las vías de acceso del parásito al sistema nervioso central, creemos de más utilidad práctica tratar de esbozar un cuadro-clínico que nos ayude a su identificación, tarea por lo demás difícil, por ser tan pocos sus rasgos característicos.

El Cisticerco puede adoptar cualquiera de las formas siguientes: Quística, Racemosa y Calcificada.

En términos generales las manifestaciones clínicas pueden ser puramente neurológicas, exclusivamente psiquiátricas o bien, lo que es más frecuente, la coexistencia de ambos tipos de alteraciones en un mismo enfermo. Nos limitaremos a analizar las primeras.

La sintomatología está relacionada con la localización del parásito, forma y número de elementos parasitarios. Conviene por lo tanto establecer una clasificación anatomo-clínica que nos ayude a interpretar los signos y síntomas de este padecimiento. La clasificación que nosotros hemos seguido en relación con la localización del parásito y por su utilidad práctica es la siguiente:

Tabla 4
Clasificación Anatomo-clínica
cisticercosis cerebral
(Dr. R. del Cuelo)

Cisticercosis cerebral ventrículo-subaracnoidea	Localizada	Nodular
Cisticercosis cerebral parenquimatosa	Diseminada	Quística

Esta clasificación establece dos formas fundamentales: La cisticercosis cerebral parenquimatosa y la cisticercosis cerebral ventrículo-subaracnoidea. Aun cuando se pueden producir variantes en ambos grupos, existe, cierta constancia en los cuadros clínicos que los distingue el uno del otro.

En la forma Cerebral Parenquimatosa los parásitos alcanzan la substancia cerebral, por vía sanguínea arterial y se sitúan como cuerpos extraños produciendo una reacción inflamatoria vecinal, y como su localización preferente es en la corteza de los hemisferios, la epilepsia focal es uno de los principales resultados. Esta variedad puede presentarse de dos maneras: la forma

Cerebral Parenquimatosa localizada, en la cual la invasión lo es por un escaso número de parásitos, y la forma Parenquimatosa Diseminada, más frecuente en los niños en donde algunas veces se descubren los parásitostes en estudios radiográficos simples del cráneo con múltiples calificaciones nodulares corticales o bien subcorticales en ambos hemisferios cerebrales. En estos casos predominan las manifestaciones Cráneo-Hipertensivas con cefaleas intermitentes, trastornos visuales en relación con grados incipientes de edema papilar, vómitos, etc. Así mismo puede haber trastornos mentales, alucinaciones visuales y auditivas y, en las últimas etapas del padecimiento, estupor y delirio.

La variedad de Cisticercosis Parenquimatosa Localizada puede presentarse en dos formas: Nodular y Quística. La primera de éstas presenta nódulos parasitarios palpables o visibles, situados sobre la corteza cerebral cuya manifestación clínica habitual es en forma de ataques convulsivos focales, persistentes y en particular rebeldes a todo tratamiento. En algunos casos puede confirmarse la existencia de un foco Epileptógeno Cortical.

La Parenquimatosa Localizada que se presenta en forma quística muestra a los parásitos formando una gran vesícula subcortical, con membrana propia, delgada y fácilmente disecable del tejido cerebral, donde se aloja. El contenido que es líquido, se llena con un gran número de quistes de cisticerco y formaciones de un material calcificado. Al crecer en tamaño pueden originar las manifestaciones propias de un tumor cerebral con signos radiológicos y clínicos que hacen pensar en la existencia de éste. El cuadro clínico puede ser cráneo-hipertensivo o de localización siendo estos casos más susceptibles para presentar trastornos en la esfera mental.

Por último en la cisticercosis cerebral ventrículo-subaracnoides los embriones del parásito llegan al encéfalo por vía de las arterias de los Plexos Coroideos Intraventriculares, pasan a la cavidad de éstos en cuyo interior flotan en el líquido cefalorraquídeo para más tarde movilizarse en el sistema ventricular e ir a situarse en los espacios subaracnoides de la base del encéfalo y así bloquear el sistema ventricular al nivel de sus estrecheces naturales, agujeros de Monro, acueducto de Silvio, etc. Además, su presencia en las cisternas basales produce una reacción inflamatoria con la consiguiente Aracnoiditis y una dificultad para la absorción del líquido cef-

alorraquídeo, lo que, en unión del bloqueo, hace aumentar la Hidrocefalia. Con estas alteraciones encefálicas es fácil pensar que la sintomatología obedezca a un aumento de la Presión Intracranial con una Hidrocefalia interna de tipo progresivo la cual puede agudizarse en forma intermitente. En estas condiciones existen además alteraciones de tipo cerebeloso así como ataque a diversos pares craneales por el proceso de la aracnoiditis basal. Esta forma de presentación de las lesiones, en nuestra propia experiencia y en la de otros autores es, con mucho, la más frecuente y su evolución tiende a ser más rápida que en las otras variedades. Predominan como manifestaciones clínicas las modificaciones visuales, cefalea intensa que puede ser intermitente en un principio para hacerse continua posteriormente, vómitos y, por último, trastornos en la esfera mental, tales como amnesia, desorientación, bradipsiquia, y cuadros depresivos casi demenciales. Los trastornos cerebelosos se encuentran principalmente en relación con el equilibrio y la marcha. El temblor uni o bilateral fino es frecuente, tanto como la lesión de algunos pares craneales.

Como puede observarse de lo expuesto, no existe un cuadro clínico fácilmente identificable y las diferentes formas de presentación que hemos enumerado pueden existir en un mismo enfermo.

Sin embargo, en esta última variedad, la sintomatología es más o menos constante y podemos sospechar la naturaleza del padecimiento, tomando en cuenta que las alteraciones cráneo-hipertensivas y de fosa posterior se están presentando generalmente en un individuo adulto. En las otras formas, las parenquimatosas, hemos llegado a la conclusión que todo enfermo en la adolescencia o que ha llegado a la vida adulta con crisis convulsivas de aparición tardía y que por otro lado proviene de un medio higiénicamente deficiente, pueden ser casi seguramente portadores de esta grave parasitosis.

En cuanto al diagnóstico paraclínico de esta enfermedad diremos que es de una gran ayuda y en poco difiere de los métodos usados en otro tipo de padecimiento del sistema nervoso central. Destaca en primer lugar, el estudio dinámico y químico del L.C.R. por ofrecer la oportunidad de practicar la reacción de fijación de complemento del Dr. Nieto, prueba de laboratorio con mayor especificidad en el diagnóstico de esta condición patológica y que ofrece además un porcentaje muy bajo de falsa positividad.

Modificaciones tales como aumento de proteínas, disminución de la glucosa, aumento de células, principalmente linfocitos, y, en ocasiones, eosinófilos, pueden hacernos pensar en unión de la sintomatología ya citada, en un proceso cisticercoso.

Además, entre los exámenes que rutinariamente practicamos a estos enfermos está el Estudio Radiográfico simple de cráneo, el cual puede mostrar lesiones calcificadas, únicas o múltiples, sobre la corteza cerebral o en el espesor del parénquima cerebral, o bien imágenes radiopacas considerables que semejan un tumor.

La negatividad en el examen Electronencefalográfico en presencia de un paciente con manifestaciones convulsivas localizadas, hace pensar, en nuestro medio, en la existencia del parásito. En ocasiones, aunque no es lo frecuente, puede haber alteraciones en el registro electroencefalográfico.

En los casos cuyas manifestaciones dominantes de sufrimiento encéflico sean de hipertensión craneal con o sin manifestaciones convulsivas o de tipo cerebeloso, la mejor ayuda en el diagnóstico, la tenemos en la Ventriculografía cerebral, demostrando ésta la existencia de una gran hidrocefalia generalmente obstructiva, y en ocasiones la visualización intraventricular de las vesículas parasitarias sujetas a las paredes de los ventrículos.

No existiendo contraindicaciones de tipo craneo-hipertensivo y en presencia de individuos con manifestaciones convulsivas y sospecha, etiológica de cisticeriosis, el uso de la Nuemoencefalografía por uno u otro método es bastante eficaz, ya que nos puede aclarar en relación con este padecimiento cualquier desplazamiento o modificación ventricular originados por la presencia del parásito.

TRATAMIENTO

El tratamiento de esta grave afección dista mucho de ser satisfactorio y en muchos casos debemos contentarnos con observar tan sólo una mejoría en el enfermo.

Consideramos que tratándose de un padecimiento transmisible, el mejor o más eficaz tratamiento será la profilaxis mediante la aplicación de ordenadas normas de higiene.

Desde el punto de vista terapéutico, se han intentado diferentes métodos curativos a base de medicamentos antiparasitarios, tales como el Helecho Macho, Antimonio y últimamente el I-dietil Carbamil-4-metilpiperazina (Hetzan),

desgraciadamente con malos resultados. El uso de anticonvulsivantes está indicado en algunos casos llegando en ocasiones a dominar las manifestaciones convulsivas. Algunos han aconsejado el uso de Roentgenterapia por sus propiedades antiinflamatorias más que por la acción que ésta pueda tener sobre el parásito.

Finalmente, la terapéutica quirúrgica de esta grave afección ofrece un recurso más con el cual debemos contar en el manejo de estos enfermos y los resultados de su aplicación, aunque varían, son aceptables. La indicación será individual para cada caso y algunos que no puedan ser beneficiados con esta terapéutica.

En términos generales, por este medio quirúrgico trataremos de extirpar las formaciones parasitarias que, por su localización, den cualquiera de las manifestaciones de sufrimiento cerebral que ya hemos citado y que, mediante el uso de los diferentes medios de investigación paraclínica, hayan sido perfectamente identificadas sea su situación cortical, subcortical o subaracnoidea.

Así, en el caso de existir manifestaciones de epilepsia focal, deberá practicarse la intervención quirúrgica con objeto de extirpar, de ser posible, los parásitos causantes de la lesión cerebral una vez que se ha comprobado la existencia y localización de éstos por los medios ya descritos.

En otras ocasiones, cuando existan signos y síntomas de cranohipertensión por hidrocefalia obstructiva, debido a la presencia del parásito dentro del sistema ventricular, debemos usar cualquiera de los procedimientos quirúrgicos de tipo derivativo ya conocidos.

Nosotros en particular, cuando observamos cierta integridad anatómica y funcional en la cisterna magna, practicamos la derivación ventriculocisternal (Torkildsen) con buenos resultados. De no ser posible esto, intentamos alguno de los otros métodos de derivación, como ventriculo-pleural, ventriculo-peritoneal, etc., contando de antemano con los inconvenientes que acompañan a estos métodos, y tomando en cuenta, además, la mayor posibilidad en un bloqueo por la presencia de los parásitos.

A últimas fechas se ha intentado en algunos casos con esta tipo de alteración el drenaje ventricular continuo temporalmente, aprovechando la ventriculostomía usada para el estudio de aire. Algunos autores informan mejoría en los enfermos así tratados.

A Clinical Pharmacologic Study of Benzphetamine (Didrex®), A New Appetite Suppressant

by

Harold L. Oster, M.D.

and

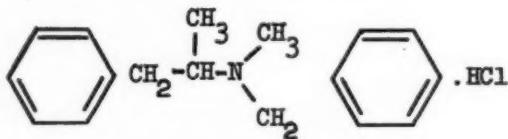
Robert E. Medlar, M.D.

IN A recent report by Simkin and Wallace(1), it was shown that benzphetamine* in doses of 25 to 50 mgm. thrice daily before meals induced progressive weight loss in each of five four-week periods. In contrast, the group given matching placebo tablets enjoyed a moderate weight loss in the first four-week period only. All subjects were advised to adhere to a 1,000 calorie diet. Side effects were similar in the drug and control groups except that there was a definitely greater incidence of hunger in the latter. It was the authors' conclusion that most of the side effects in both groups were in reality the symptoms of obese patients undergoing semi-starvation on low calorie diets.

It is the purpose of this paper to report our experiences with benzphetamine hydrochloride in terms of appetite suppression, side effects, and its freedom from influence on fasting blood sugar concentrations and blood pressures in normal subjects.

MATERIALS AND METHODS

Benzphetamine or (+) N-benzyl-N, a-dimethylphenethylamine hydrochloride has the following structural formula (dextro form):



It was synthesized in the laboratories of The Upjohn Company and the following data were provided in the Upjohn brochure on the drug. The acute LD₅₀ in mice by the intraperitoneal route was 153 mg./Kg. Orally it was 227. In rats the acute LD₅₀, orally, was 160 mg./Kg. Groups of ten adult rats, five male and five female, received 0, 3, 10 and 30 mg./Kg. of benzphetamine by intubation once daily for 32 days. Males on all dosage levels and the females on the 30 mg./Kg. level gained less weight than the con-

*The trade name for benzphetamine is Didrex®.

trols. Drug related lesions were not observed on gross or microscopic examination at the end of the tests.

Groups of three dogs were given oral doses of benzphetamine of 0, 0.3, 1 and 3 mg./Kg. daily for 37 days. No clinical signs related to drug toxicity were observed. Blood chemistry, urinalyses and kidney and liver function values were within normal limits throughout and, again, no gross or microscopic lesions observed appeared to be drug-related.

A group of eight dogs was used to study anorexigenic activity. Food was available to them at all times. First they were given 1 mg./Kg. benzphetamine orally twice daily for four weeks with the result that 5.3 Kg. weight loss was found for the group (22.0 per cent inhibition of weight gain). Following a suitable rest period, they were given 10 mg./Kg. phenmetrazine orally twice daily for four weeks. The aggregate weight loss was 5.6 Kg. at the end of that time.

In the light of these encouraging data, human tolerance was cautiously determined and it was found that 200 mg. in adults, as a *single dose*, caused only some transitory jitteriness. When given in *divided doses*, however, 80 mg. thrice daily was reported to be subjectively well tolerated (240 mg.). Appropriate laboratory studies showed no drug effect on blood, urine, renal or hepatic functions.

Preliminary efficacy trials in obese patients indicated that in the range of 30-80 mg., given thrice daily before meals, appreciable weight loss might be expected. Because of the many variables involved, it was then essential to study the drug in controlled trials, which are the subject of this report.

A. Controlled Weight Loss Study

Fifty overweight but otherwise healthy male subjects were randomly divided into two equal groups. They ranged in age from 25 to 67 years and were from eight to 105 pounds over their estimated ideal weights. The 25 control subjects averaged 36.0 pounds overweight with aggregate excess of 901 pounds. The 24 (one was transferred during the study) subjects who received the drug had an aggregate excess poundage of 993, with a sample average of 41.4 pounds.

Scored placebo and 50 mg. benzphetamine tablets of similar appearance were taken, under supervision, thrice daily, 20 to 40 minutes before meals for 28 days. There were no dietary re-

strictions.

Participants in this study had blood pressure determinations, urinalyses and hemoglobin determinations (Beckman method) prior to and at the conclusion of four weeks' medication. Body weight was recorded at weekly intervals. Information concerning subjective side effects was elicited at frequent intervals.

B. Controlled Dosage Comparisons

Forty obese men were randomly divided into groups of ten. One group was given one-half tablet of one coded preparation, another a whole tablet thrice daily before meals for seven days. The other two groups were given one-half or a whole tablet of the other coded preparation at the same time. Diet was unrestricted in all groups.

The first six days each subject was asked daily to volunteer information as to subjective side effects. At the end of the seven-day study each was asked specific questions concerning changes in appetite, sleep pattern, mood and other symptoms which might have been drug-induced.

Each man was weighed before and at the conclusion of the study.

C. Effect on Blood Sugar

Twenty-one other normal men were given single doses of 200 mg. (four tablets) while in the fasting state. Blood glucose determinations (Hoffman method⁽²⁾) were done at intervals. Resulting curves were compared with those obtained in 18 experiments in which placebos had been used and with those following one-gram doses of tolbutamide (Orinase). The latter represented 69 runs in 12 experiments.

RESULTS

A. Controlled Weight Loss Study

Detailed data concerning control and drug groups are given in Tables 1 and 2. During the four-week period weight change in the 25 control subjects was a gain of 28 pounds, an aggregate loss of 25. There was, then, no evidence of appetite suppression.

In the treatment group of 24 subjects there was a net loss of 178 pounds during the four weeks, versus a gain of only nine. The loss in the aggregate totaled 169 pounds or 1.75 pounds per patient per week. Only three subjects failed to lose some weight. Loss in the other 21 ranged from three to 16 pounds with a mean loss of seven pounds per subject during the study.

Table 1
Data on Subjects Given Benzphetamine

Subject No.	Age	Est. Pounds Overweight	Weight Loss or Gain				Overall Change
			First Week	Second Week	Third Week	Fourth Week	
1.	57	46	-3	0	0	0	-3
2.	35	35	+4	-1	0	+2	+5
3.	59	45	-3	+3	-1	-2	-3
4.	35	40	-4	-1	-2	0	-7
5.	55	32	-6	+1	0	-1	-6
6.	48	38	-1	-1	-2	-2	-6
7.	45	33	-7	+3	-3	-2	-9
8.	48	77	-3	0	-1	-2	-6
9.	44	80	-8	-2	-5	-1	-16
10.	33	43	-5	-4	-3	+2	-10
11.	35	20	-1	+6	-3	+1	+3
12.	34	32	-8				
13.	36	50	-5	0	-1	+3	-3
14.	39	38	-5	+1	-1	-3	-8
15.	32	30	-8	+1	-4	-3	-14
16.	67	59	-3	+3	-3	-2	-5
17.	33	18	-10	+2	-1	-1	-10
18.	33	69	+2	-3	+3	-1	+1
19.	32	16	-7	-1	-1	-5	-14
20.	32	28	-4	-1	-2	-3	-10
21.	38	60	-8	-2	-2	-4	-16
22.	25	48	-5	-4	-3	+3	-9
23.	40	8	-3	-2	+2	-3	-6
24.	42	20	-6	0	-2	-2	-10
25.	32	60	-5	+1	-3	0	-7
		993					
Pounds lost		-110	-22	-43	-37	-178	
Pounds gained		+6	+21	+5	+11	+9	
Difference		-104	-1	-38	-26	-169	

Table 2
Data on Subjects Given Placebo

Subject No.	Age	Est. Pounds Overweight	Weight Loss or Gain				Overall Change
			First Week	Second Week	Third Week	Fourth Week	
1.	41	45	-1	+1	-2	+3	+1
2.	55	105	-4	+4	-1	-2	-3
3.	35	15	+1	+1	+7	-5	+4
4.	36	44	+1	+2	-2	-2	-1
5.	47	42	0	0	-1	+1	0
6.	26	44	-1	+1	0	-1	-1
7.	32	70	+1	+5	0	+1	+7
8.	29	45	-5	+3	-1	+1	-2
9.	26	20	-4	+4	0	+3	+3
10.	23	0	0	+1	+1	-2	0
11.	32	35	+1	-1	+2	-1	+1
12.	64	25	0	+2	-1	-2	-1
13.	33	33	0	-1	-1	-1	-3
14.	39	30	+1	+1	-2	+1	+1
15.	59	9	-1	-2	+1	+1	-1
16.	38	22	+1	+1	+1	+2	+5
17.	32	21	-3	+3	0	+1	+1
18.	26	40	-3	+2	-1	-1	-3
19.	35	30	0	-4	+3	+1	0
20.	34	55	+1	0	+2	-2	+1
21.	26	23	-3	0	+2	+1	0
22.	25	20	-1	+1	+2	-1	+1
23.	33	40	-5	-1	0	0	-6
24.	48	49	-2	+1	-1	-1	-3
25.	47	16	+1	+2	+3	-3	+3
		901					
Pounds lost		-33	-9	-13	-24	+28	
Pounds gained		+8	+35	+24	+16	-25	
Difference		-25	+26	+11	-8	+3	

No significant alterations in blood pressures were noted. Prior to the study blood pressure in the 24 drug subjects averaged 138.0/96.3 (range 168-102/136-78). At the conclusion of the 28-day study mean blood pressure was 135.8/97.1 (range 184-110/134-68). These were remarkably similar to the placebo group data. Prior to the study, blood pressure for the 25 men averaged 136.3/91.4 (range 170-102/128-84). At the end the mean pressure was 129.4/94.8 (range 156-104/110-82). Similarly, no significant changes were noted in before-and-after urinalyses or hemoglobin levels in drug or control groups.

The subjective effects or side effects noted during the study by members of treatment and control groups are presented in Table 3. Impaired appetite was reported twice in the control-group and in 21 of the 24 receiving the drug. Central nervous system stimulation, usually limited to the first day or two, was noted by two control subjects, and by 15 receiving the drug. Several of these reported mood elevation but only three of the 24 men getting the drug were "nervous". Others commented that they slept better, were "calmed down" or that they needed less sleep.

B. Controlled Dosage Comparisons

On the basis of the Simkin-Wallace report we had not anticipated that over half the subjects given 150 mgm. benzphetamine daily would have symptoms of central nervous system stimulation. To study this further, ten men were given 50 mgm., ten received 25 mgm thrice daily before meals, and corresponding placebo groups were carefully observed. Results have been summarized in Tables 4 and 5.

Nineteen of the 20 men given benzphetamine lost weight in amounts ranging from 0.5 to nine pounds during the week. The aggregate loss for the 20 men was 50 pounds. In the placebo groups, weight loss was enjoyed by six of 20, in amounts ranging from 0.5 to 9.5 pounds. Aggregate gain was nine pounds. These results resembled those in the first controlled trial and suggested that 25 mgm. doses might be as efficacious as 50 mgm. ones.

In Table 5 are presented results of the interviews. Both dosage regimens of the drug gave excellent appetite suppression. Both induced stimulation which tended to be dose-size-related. Men complained of difficulty in getting to or

staying asleep the first night or two. The stimulation was not "jitteriness" but rather a calm, clear-headed alertness which was not unpleasant. It was especially noteworthy that in spite of interference with sleep, none complained of being tired in the mornings.

C. Effect on Blood Sugar

Blood sugar levels following single 200 mg. doses of benzphetamine in fasting normal subjects did not differ significantly from those in similar subjects given placebos. The following tabulation gives the adjusted average blood sugar levels as per cent of the placebo group average:

Time	Benzphetamine	Tolbutamide
	200 mg.; 21 subjects	1 Gm.; 69 "runs"
0	100%	100%
20 minutes	99.5	—
40 minutes	99.2	—
1 hour	97.6	91.6
2 hours	100.3	88.2
4 hours	102.8	88.3
6 hours	100.8	91.0
8 hours	100.3	92.0
10 hours	101.5	93.5

These data are shown graphically in Figure 1. At this dosage level definite jitteriness was noted consistently.

DISCUSSION

Total weight loss in both the four-week and the seven-day studies was significantly greater in the men given the drug than in those receiving placebo tablets. Of 34 given 50 mgm. thrice daily before meals, all but three lost weight. At the 25 mgm. level, nine of ten did so. This seemed remarkable for, in contrast to the bulk of reported studies on anorexigenic agents, no dietary restrictions were advised. Several of the men at both dosage levels commented that they "filled up on less", "were not hungry" or "less food satisfies".

Aside from appetite suppression, the only frequently encountered side effect seemed to be difficulty in getting to or staying asleep the first few nights of the study. In spite of this, none complained of being tired. The stimulation was not a jitteriness; rather, the men were alert and clear-headed, with mood elevation in some. It was significant that blood pressure in control and treatment groups showed no difference from baselines after 28 days' ingestion of 150 mgm. of

Table 3

Side Effects	25 Subjects Placebo	Benzphetamine 24 Subjects
Impaired Effects	2	21
Interference with sleep	2	15
Mood elevation	1	6
Increased appetite	3	
Dizziness		3
Nervousness		3
Dry mouth		2
Slept better	1	1
Needs less sleep		1
Increased urination	1	
Nausea	1	
Headache	1	
Increased sweating		1
Calm him down		1
Constipation		1
Tired feelings in legs		1

Usually limited to first night or two of treatment.

Table 4

Weight Change in 40 Men Given Benzphetamine or Placebo for One Week

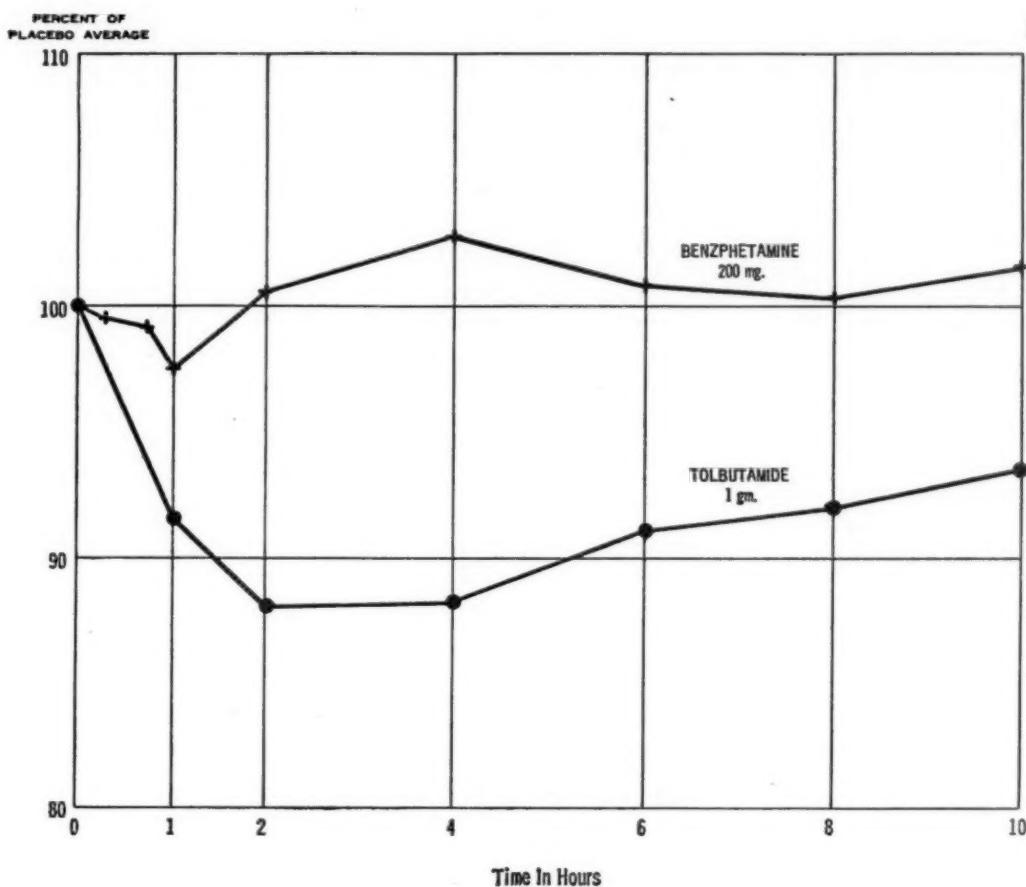
1. Benzphetamine	½ tablet (25 mg.) t.i.d., ac.	1 tablet (50 mg.) t.i.d., ac.
1. 203.0 to 200.5 lb.	—2.5 lb.	185.0 to 184.0 lb.
2. 232.0 to 230.5 lb.	—1.5 lb.	234.0 to 231.0 lb.
3. 208.5 to 206.0 lb.	—2.5 lb.	259.0 to 258.0 lb.
4. 189.0 to 180.0 lb.	—9.0 lb.	242.0 to 241.5 lb.
5. 224.0 to 219.5 lb.	—4.5 lb.	186.0 to 185.5 lb.
6. 185.0 to 183.0 lb.	—2.0 lb.	240.5 to 236.5 lb.
7. 203.0 to 199.5 lb.	—3.5 lb.	213.0 to 212.0 lb.
8. 229.0 to 233.0 lb.	+4.0 lb.	208.0 to 204.5 lb.
10. 207.0 to 203.5 lb.	—3.5 lb.	234.0 to 227.5 lb.
Loss	—31.5 lb.	
Gain	+ 4.0 lb.	
Balance	—27.5 lb.	
2. Placebo	½ tablet t.i.d., ac.	1 tablet t.i.d., ac.
1. 184.0 to 188.0 lb.	+4.0 lb.	199.0 to 201.5 lb.
2. 260.0 to 259.5 lb.	—0.5 lb.	212.5 to 213.5 lb.
3. 192.5 to 194.5 lb.	+2.0 lb.	204.0 to 201.0 lb.
4. 204.5 to 203.5 lb.	—1.0 lb.	160.0 to 158.0 lb.
5. 216.0 to 217.5 lb.	+1.5 lb.	210.5 to 214.0 lb.
6. 192.0 to 193.0 lb.	+1.0 lb.	208.0 to 209.0 lb.
7. 193.5 to 192.5 lb.	—1.0 lb.	178.5 to 169.0 lb.
8. 184.5 to 187.5 lb.	+3.0 lb.	206.5 to 209.0 lb.
9. 182.5 to 184.0 lb.	+1.5 lb.	192.0 to 192.0 lb.
10. 178.5 to 181.0 lb.	+2.5 lb.	178.5 to 178.5 lb.
Loss	— 2.5 lb.	
Gain	+15.5 lb.	
Balance	+13.0 lb.	

Table 5

Symptoms and Effects Reported Following Benzphetamine and Placebo

	Didrex	Placebo		
	25 mg.	50 mg.	½ tab.	1 tab.
Appetite Loss	9	10	1	1
Food Intake Loss	9	10		2
Sleep Better	1			2
Sleep Worse	5	8	2	2
More Alert		2		
Calmer	1			
Headaches	1	3		
Increased Urination		1		
Increased Sweating		1		
Light-headed		2		
Nausea, Upset Stomach		3	1	
Loose Stools		1		
Bloating				
Abdominal Cramping			1	
Dry Mouth	1			1
Legs Ache, First Night		1	1	

Except for appetite suppression, these effects were usually limited to the first day or two of study.



benzphetamine. Especially noteworthy was the finding that large single doses (200 mgm.) did not modify fasting blood sugar curves. These data suggest the drug will be useful in obese patients also hypertensive or diabetic.

Although central nervous system stimulation was not prominent in the study of Simkin and Wallace, it may be that patient-selection would explain this. They studied patients attending an obesity clinic, and it may be that they had developed tolerance to the amphetamine group of drugs. In contrast, the men in this study had in no case been given medication for weight reduction in the recent past.

It seems probable that the selective stimulation of the nervous system without effect on blood pressure, as seen in our data, is desirable. Patients at once know they are being given a potent medication, an important part of the psychologic support required to continue a weight reduction program. Change of dietary habits

may be facilitated by a drug which "gives a boost", so to speak. It was noteworthy that even after less sleep than usual, the men did not feel tired. And in most cases interference with sleep was limited to the first night or two.

Finally, it should be kept in mind that a rigid regimen was followed in these studies. In practice it would probably be wise to modify dosage according to the needs of each particular patient. Giving one-half or one tablet in mid-morning at the outset might well suppress appetite until bedtime when stimulation would have diminished. The daily dosage could then be modified from time to time according to individual requirements. This approach is currently under study.

SUMMARY

Three attributes of the appetite suppressant drug, benzphetamine hydrochloride (Didrex®) were studied.

1. Appetite suppression and weight loss com-

parisons of drug and placebo were done in 49 obese men over a four-week period and in 40 men for one week. Good appetite suppression was obtained with 25 mgm. and 50 mgm. doses given thrice daily before meals. Although there were no dietary restrictions, significantly greater weight loss occurred in the groups given 25 or 50 mgm. doses than in the control subjects.

2. Central nervous system stimulation was frequently seen at both dosage levels as shown by interference with getting to or staying asleep the first night or two of both studies. This should readily be controlled by appropriate flexible dosage regimens. It is significant that blood pressure determinations done before and after 150 mgm. of drug daily for four weeks showed no significant differences from each other or from the control figures. Urinalyses and hemoglobin determinations likewise were not altered. These

data suggest the drug may safely be used in obese patients with hypertension.

3. Blood sugar curves in 21 normal adult males were the same following placebo and after single 200 mgm. doses of benzphetamine. These data suggest the drug will be helpful to the obese diabetic.

Thus benzphetamine appears to fulfill the essential criteria for a useful agent in the management of obesity in uncomplicated cases as well as in those complicated by hypertension or by diabetes mellitus.

ACKNOWLEDGEMENTS

We wish to thank William E. Dulin, Ph.D. and Fredericka L. Schmidt of The Upjohn Company for their technical assistance.

REFERENCES

1. Simkin, B., and Wallace, L.: A Controlled Clinical Trial of Benzphetamine (Didrex®) in the Management of Obesity, Current Therapeutic Research 2:33-38, 1960.
2. Hoffman, W. S.: A Rapid Photoelectric Method for the Determination of Glucose in Blood and Urine, J. Biol. Chem. 120:51, 1937.

PLEA TO AN M.D. (ANY M.D.)*

Summer, 1960

The doctor is a worthy gent;
His patients claim he's heaven-sent.
The man is knowing, erudite;
But, holy cats! He just can't write!

The surgeon's hands are deft and skilled;
The surgeon's head is *know-how* filled.
Yet why — since he's so doggoned bright —
Cannot the surgeon learn to write?

Dear sons of old Hippocrates,
Pray hear a troubled nurse's pleas:
Remember that the gals in white
Have got to *read* the stuff you write!

Your physicals and histories,
Like Dead Sea Scrolls, are mysteries;
Your order sheets make nurses squint;
So please, dear sire, *write* right — or print!

— Ceilia Hargrove, R.N.

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Uterine Prolapse in the Young Nulliparous Female*

A POSSIBLE CONTRIBUTING FACTOR

Donald W. deCarle, M.D.

San Francisco, California

Two case reports illustrate the fact that the anthropoid pelvis may be a causative factor in uterine prolapse.

In 1947, H. O. JONES, of Chicago, presented a comprehensive discussion on the subject of uterine prolapse. In it, he dealt primarily with the multiple problems associated with uterine prolapse in general but emphasized those related to such a complication in the young nulliparous woman. In order to stress the latter, he presented the case history of a young musical comedy star who did acrobatic dancing. A part of the dance consisted of being tossed over a high wall near the back of the stage. During one of these particularly strenuous dances, she was suddenly conscious of something protruding from her vaginal orifice. On examination, this proved to be a completely prolapsed uterus.

According to Jones, the immediate cause of this condition was the trauma resulting from being repeatedly tossed over the wall. The imponderables in this case, in his opinion, however, were the factors which allowed a procidentia to occur in this particular young lady. What was equally disturbing was the selection of an appropriate operative procedure which would satisfactorily replace this young lady's uterus so that she might resume her work with

a minimum loss of time. Still more important was the selection of a procedure which would in no way interfere with normal intercourse or a succeeding pregnancy.

Difficulties surrounding this problem and the high percentage of indifferent operative results in patients with this complication were, in the opinion of this operator, due to failure in finding and properly evaluating all the initiating factors relating to prolapsus uteri.

Investigation

Impressed by the work of this author and because of the general failure to improve the treatment of these patients in a substantial number of those operated, further investigation was deemed justified. No actual effort to invade this highly controversial field was made, however, until some five years ago.

It was the original intent of this investigation to discover a more intelligent approach, if possible, to the problem of treatment in an effort to increase the number of patients with uterine prolapse who could be successfully operated. As a means of accomplishing this end, it was thought advisable first to review and whenever possible to re-evaluate all factors known to date which could contribute in any

*Presented before the Ogden Surgical Society meeting, May 20, 1959. (Reproduced through cooperation with the ROCKY MOUNTAIN MEDICAL JOURNAL.)

way to this condition, especially in the young nulliparous female. In the second place, it was felt equally essential to search for any further etiologic agents which could conceivably have been previously overlooked.

With these objectives in view and on consideration of the first of these problems through a cursory review of the voluminous literature relative to all and sundry phases of the subject, one is impressed with the lack of unanimity of opinions both as to the underlying anatomic as well as to the causative factors of uterine prolapse.

It was only at the end of the last century that the controversy in regard to the various pelvic structures relative to the etiology of uterine prolapse was supposedly definitely settled. This was accomplished mainly through the efforts of two investigators in the field, namely Watkins and Wertheim. It was their opinion that the only tissue structures believed to be of any marked value in relation to support of the pelvic organs, namely fascia formations and the pelvic musculature, were of equal importance.

Uterine ligaments

Since that time, however, the entire subject of anatomy and tissue structure as it relates to uterine prolapse has again become controversial. As an example, the relative value of the so-called ligaments and other fascial structures has again been challenged. Their importance to pelvic support, according to certain of the authors, has been erroneously based upon three concepts. The first of these maintained the existence of sheath-like condensations around the various pelvic organs. According to the investigations, chiefly of Bell, Goff, Koster, Lisa, Ricci, Thom and Kron, these condensations are not to be found. As to the second of these concepts, Koster, Goff and Berglas, and Rubin, among others, contend they have satisfactorily proved that the so-called ligaments of the pelvis do not contain similarly described concentrations of connective tissue. Finally, this same group of investigators state that the last of these concepts which maintained the fixation of the fascial connective tissue to the boney pelvic walls has, in their opinion, never been satisfactorily proved.

Still another example is the result of the work of Berglas and Rubin. By an x-ray procedure

known to them as myography, they believe that they have shown conclusively the greater importance of the musculo-pelvic floor. This, in their opinion, is particularly true of the levator muscles referred to by them as the levator plate. It is their contention that potential prolapse depends primarily upon any change in the so-called normal anatomic relationship between the uterus and this levator plate.

Finally, as early as 1917, attention was first diverted by Finley from the fascial and muscular structures as the exclusive sources of factors contributing to procidentia. Since then, it has become a more or less generally accepted opinion that prolapse, especially in the nulliparous woman, can also be associated with various bony deficiencies of the pelvis and especially those of the lower lumbar and/or the upper sacral spine. These may include all lesions from the mildest, such as spina bifida occulta and meningocele, to the more severe, associated with extrophy of the bladder.

Other structures

Thus, to date, it would seem that all supportive structures, namely muscular, fascia, and bony, are all involved in varying degrees in the mechanism contributing to the failure of adequate support of the pelvic organs.

What is even more essential to the solution of this problem is the recognition and proper evaluation of all factors and forces which have sufficiently modified these same tissue structures to the point that they no longer give proper support to the pelvic organs in general and the uterus in particular. As recently as 1955, Stearns, among the various workers in this field, stated that there were multiple agents of equal importance involved as causes of this condition. The three most common, in his opinion, were, first, constitutionally inadequate supporting tissue; second, age with its attending trophic changes; and third, trauma, especially that of labor. To these Jacobi adds still a fourth, namely nutritional deficiencies.

Constitutional predisposition

As opposed to the opinion of these two, as well as that of many other investigators in this field, von Graff believes there is only one single, underlying causative factor in the etiology of uterine prolapse. In the discussion of this subject, published in 1933, he states that procidentia, whenever it occurs, depends primarily on what

he calls "individual constitutional disposition." This he qualifies as a functional inefficiency of the mesodermal structures whose inherent "constitution" is "definitely determined for each individual at the moment of fusion of her parental germinal cells." This, in other words, accounts for the marked variation in behavior in different individuals in the presence of the same identical physiologic event. For example, von Graff points out that as opposed to the nulliparous woman with procidentia, there are numerous women who may have had up to 10 or even more deliveries with no evidence of uterine descensus.

According to this theory of von Graff, all other causative factors as cited by Stearns, Jacobi and others, such as trauma, age, and nutritional deficiencies, are initiating agents only of uterine prolapse. They favor the development of descensus exclusively in those individuals who possess such functional inefficiency of the mesodermal structures.

Based upon this reasoning, von Graff divides all women with uterine prolapse into four main groups according to age and to intensity of this deficiency. The first of these groups and the one of primary interest in this discussion includes virgins and all other nulliparous women with prolapse. Among these, he recognizes certain stigma as evidence of mesodermal inefficiency. They include spina bifida occulta along with displacements of the uterus, and various manifestations of enteroptosis. Also included in this group are certain general structural types identified by him.

Of all the theories offered to date as to the factors underlying uterine prolapse, that of von Graff, based upon congenital inadequacy, would seem to offer the most logical explanation of this condition, especially as applied to the nulliparous female.

As previously stated, it became the second objective of this investigation to search for any other contributory agents which might possibly have been previously overlooked. It was hoped by this means also to discover further evidence which might be found helpful in either proving or disproving von Graff's theory of mesodermal incompetence. This study, as will become apparent, is still in its incipiency. It must, therefore, be considered in the nature of a preliminary report only.

Although as a result of Finley's discovery,

x-ray of the lower spine had become an established procedure in the routine study of uterine prolapse, especially in the nulliparous woman, a comparative few had been shown to have any evidence of bony defection of this type. It was decided, therefore, to study the bony structure of the pelvis in its entirety.

The initial investigation was a complete x-ray study of the bony pelvis of two patients who presented unusual problems. Their case histories are herewith given in detail.

CASE REPORTS

Case 1: Miss M. A., a nulliparous young woman aged 29, was first seen because of pelvic discomfort. Physical examination was essentially negative, except that the patient herself presented a picture of a female with general bony structure definitely larger than average. Examination of the pelvis showed an ovarian cyst with a freely movable 3° retroversion of the fundus and general pelvic relaxation. After a period of observation of some 18 months, surgery was decided upon because of enlargement of the cyst with symptoms suggestive of torsion of the pedicle. Unfortunately, because of the pelvic symptoms, uterine suspension was attempted at the time of surgery. It was noted that the pelvis was unusually large with extra long, rudimentary sacro-uterine ligaments. Imbrication of the latter was done, however, along with a modified Gilliam suspension. Within two months of the operation, all pelvic symptoms had returned. A recurrence of the retroversion with evidence of marked descensus was found. X-ray at this time showed no occult spina bifida. Study of the pelvis itself, however, showed a large anthropoid type of pelvis. A subsequent Manchester type of procedure with amputation of a markedly elongated cervix was carried out. All symptoms and findings again returned within a few months after this second operation.

Case 2: Mrs. A. J., a nulliparous married woman, when first seen at the age of 26, complained of some vaginal discomfort. A markedly elongated cervix with a freely movable retroverted uterus with some evidence of prolapse was found on vaginal examination. This patient conceived shortly thereafter and delivered at term without difficulty. Although the cervix was found to protrude and descensus was more marked, surgery was deferred. Following a second term pregnancy, when the prolapse was

increased and because of an active chest lesion which precluded more pregnancies, a vaginal hysterectomy was done. The patient was then 31 years of age. X-ray of this pelvis also showed a type of pelvis similar to that found in the first patient. (Her rather large skeletal structure, known to Caldwell and his group as the anthropoid type, was also noted at this time.)

Following the x-ray study of these two patients, it was decided to investigate all nulliparous patients seen by us with uterine prolapse, of 39 years or younger, and all others whose history of the onset of this complication preceded this age. This study consisted primarily of pelvic x-ray whenever possible, otherwise in clinical examination of the pelvis in general and the bony pelvis in particular.

The case histories of all nulliparous women treated for uterine prolapse in the past 10 years at Children's Hospital were also studied. There were some 53 in all, out of which only 10 were of 39 years or younger. Since then, studies of two more patients have been added.

To date, seven patients by x-ray and probably two more out of the 14, were found to present evidence of the existence of the anthropoid pelvis. This pelvis, with its unusually large inlet, especially the anteroposterior dimensions and the presence of the straight sacrum, suggests definite inherent weaknesses of the pelvic sling. Members of the x-ray department at Children's Hospital frequently refer to the woman with this type of pelvis as "Fanny Open Bottom." Recognition of women with such a type of pelvis, even in the absence of an x-ray, is possible. The true anthropoid type of female, as described by Caldwell and Malloy, is usually taller than average but may at times have short legs with a proportionally large torso.

Discussion

The question naturally arises as to the relative value of such a study to the over-all solution of the problem of uterine prolapse in general and in the young nullipara in particular. One can only say that the larger size and greater depth of the pelvis associated with uterine prolapse has been previously noted at various times in the literature. However, to our knowledge, no attempt has been made thus far to establish any particular type of pelvis as predominant in these women prone to prolapse. In view of our findings, so far, however, the possibility that one

type in particular, as opposed to all others, strongly suggests itself. This particular pelvis is referred to by Caldwell and Malloy as the anthropoid pelvis; Murphy as "infantile pelvis," and previously by Baudolique as the "assimilation pelvis." All imply faulty development; all imply faulty mesodermal structure, as suggested by von Graff.

In consideration of any clinical significance of such a finding, it should be noted that treatment of any complication of this kind can be divided into (1) preventive, (2) conservative, and (3) definitive.

Regarding the question of preventive treatment in gynecology in general, Schuman in a recent talk stated that "in gynecology, we are still entirely too surgically minded. We can cure disease rather than attempt to prevent it." He then concludes, "I believe that it may be said that should the gynecologist devote himself with great assiduity to the prevention of the occurrence of lesions of the pelvic organs, his work will be crowned with success."

Preventive treatment

Thus, the preventive forms of treatment in this, as in any other gynecologic condition, should assume a new importance. It is difficult, however, with our present knowledge, to find any application of this or any other positive finding of any specific value in the preventive treatment of uterine prolapse in the nulliparous woman. However, in our opinion, it does not have a definite application in preventive treatment of this condition in general, especially in the field of obstetrics. It is particularly within the province of the obstetrician to choose those methods of procedure in delivery which are least likely to further weaken supportive structures which are already inherently defective. This applies to any pelvis in which an extrophy of the bladder has occurred with its associated bony defects. It also applies to any pelvis with other associated bony defects such as meningocele, spina bifida, or spina bifida occulta. Finally, in our opinion, it also applies to patients in whom an anthropoid type of pelvis may be found.

Surgical treatment

Because it is of little value to any group primarily interested in surgery, the second or conservative form of treatment will not be considered here. The question finally arises as

to any importance such as investigation might have in the definitive or surgical treatment of uterine prolapse. Until that day which Schuman visualizes when and if all such gynecologic complications can be entirely prevented, surgery must play an important role in their correction. Thus, for an indefinite period of time to come, any factors found which could be of added help in approaching the problem of prolapse, especially in the young nulliparous woman, can be of distinct importance.

To be of value in this latter group, however, any operative procedure must return the uterus to its normal position. It must not interfere with normal intercourse. Even more important, it must in no way handicap or prevent a succeeding pregnancy, should that occur.

This eliminates a vast majority of the 300 or more surgical procedures described in the past in the treatment of uterine prolapse. Assuming the large anthropoid pelvis to be present in at least a definite percentage of these patients, the presence of the elongated sling and the resulting rudimentary sacro-uterine and round ligaments could conceivably account for failure in certain of these procedures. This is especially true of

those which depend upon these same ligaments.

It was not until 1914 that the work of Fothergill, along with that of Donald in Manchester, dispelled the theory that a cure for uterine prolapse could only be accomplished by narrowing the vagina. This followed closely upon the discovery of Machenrodt of the ligaments which bear his name. It is utilization of these ligaments which forms the basis for the Manchester of Donald-Fothergill-Shaw operation, described at that time.

It would seem that the very fact that this same operation has survived even to the present proves it to be the one procedure which has best corrected uterine prolapse in the largest number of nulliparous patients to date. However, this fact combined with the substantial percentage of failures in the operative treatment of this condition, even in the most capable hands, would definitely imply that there are other factors which contribute to the cause of proctidencia uteri which as yet remain undetected. Until that time when they are discovered and properly evaluated, such an investigation as is herewith presented would seem to be definitely justified.

DR. JOHN D. PORTERFIELD
DEPUTY SURGEON GENERAL, U. S. PUBLIC HEALTH SERVICE

Of the 10 million persons in the nation who have heart disease — 4 million — 40 per cent — are 65 or older. At any given time, some 750,000 persons have cancer and most of these are persons who are over 65. Almost 3 million persons have diabetes and the elderly have more than their proportionate share. This is also true of the 5 million who suffer from arthritis and the 6 million who are affected by related rheumatic disorders.

Forty-three per cent of those who are 65 or older are limited in activity — compared to 10 per cent of all ages. Only 3 per cent of all ages have limitations of mobility — compared with 19 per cent of those who are over 65.

Hearings on Health Needs of the Aged (April 4-6, 1960)



**6-10 HOURS
SUSTAINED THERAPY**

**AMOdex
ADVANTAGES**

HIGH-LEVEL ANOREXIGENIC ACTIVITY WITHOUT NERVOUS EXCITATION
SMOOTH, UNIFORM ACTION
THERAPEUTIC EFFECT LASTING 6 TO 10 HOURS
ONLY ONE DOSE DAILY
CLINICALLY ECONOMICAL TO THE PATIENT

Timed AMOdex CAPSULES are manufactured under these patent numbers:

2,736,682 - 2,809,916

2,809,917 - 2,809,918

Which provide prolonged, continuous therapeutic effect over a period of 6-10 hours

ONE and only ONE Timed AMOdex CAPSULE PER DAY will economically

**control appetite in weight reduction
or relieve the nervous symptoms of
anxiety and the underlying depression.**

Timed AMOdex CAPSULES (Testagar) furnish a controlled uniform action. The medications provide prolonged, continuous therapeutic effect from active ingredients over a period of 6 to 10 hours.

Following ingestion of one *Timed AMOdex CAPSULE*, small amounts of the medication are released immediately.

Each *Timed AMOdex CAPSULE* contains a daily therapeutic dose of:

Dextro-amphetamine hydrochloride	15 mg.,
Amobarbital	60 mg.

PROTRACTED THERAPEUTIC EFFECT

Before the development of *Timed AMOdex* (Testagar) the usual dose of Dextro-amphetamine hydrochloride, for the control of appetite, was one 5 mg. tablet two or three times a day. The usual dose of Amobarbital ranged from 20 to 40 mg., two or three times a day. On such a dosage regimen the absorption of the drugs, after ingestion, takes place quite rapidly. The therapeutic activity occurs within one-half to one hour. When the therapeutic peak is reached, a gradual decline takes place. At this point, the patient should receive another dose of medication . . . the cycle is then repeated.

Patients frequently fail to follow the physician's instructions. They take medication at irregular intervals. When this occurs with drugs such as dextro-amphetamine sulfate, phosphate or hydrochloride, excitation may result. A balanced combination of Dextro-amphetamine hydrochloride, the preferred salt, plus a balanced daily dose of Amobarbital will give the expected therapeutic results *without* excitation.

Timed AMOdex, after ingestion, releases Dextro-amphetamine Hydrochloride and Amobarbital steadily and uniformly over a period of 6 to 10 hours. Therefore, the physician may dispense with the usual dosage schedule thereby attaining better control of therapy. The patient will receive the benefits of even and sustained therapeutic effects. Side reactions such as anxiety and excitation are greatly minimized.

ACTION AND USES

Timed AMOdex CAPSULES (Testagar) supply the antidepressant and mood-elevating effects of Dextro-amphetamine hydrochloride and the calming action of Amobarbital. *Timed AMOdex* elevates the mood, relieves nervous tension, restores emotional stability and the capacity for mental and physical effort.

INDICATIONS

Timed AMOdex is the preferred treatment in anxiety states and in the management of obesity. *Timed AMOdex* may also be used in the treatment of Depressive states, Alcoholism, Nausea and Vomiting of Pregnancy.

DOSAGE The Daily Dose of *Timed AMOdex* (Testagar) IS ONE CAP-
SULE ON ARISING OR AT BREAKFAST.

SUPPLIED Bottles of 100 and 1000 capsules, available at all pharmacies.
Also supplied in half strength as *Timed AMOdex, Jr.*

**SAMPLES AND LITERATURE
UPON REQUEST**

Testagar & CO., inc.

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*Arizona Medical Association Reports**The President's Page*

THE MEDICAL JOURNAL ARGUMENT

Lindsay E. Beaton, M.D.

Before the decision was made to have the Arizona Medical Association undertake the publication of *Arizona Medicine*, the Editor asked the Board of Directors seriously to consider the possibility of discontinuance. He thereby acknowledged not only the special problems of our journal but also the existence of strong opinion that there are too many medical magazines and particularly too many sponsored by State societies.

Already is it clear that the judgment to perpetuate *Arizona Medicine* and to publish it ourselves was correct. Technical contraindications have vanished with the change in management, and the periodical has become a worthy rostrum for scientific contributions and a bright and lively envoy of the Association. It is taking giant strides under the direction of an exceptionally able and devoted editor and an imaginative and conscientious editorial staff. This essay discusses the general reasons that indicate a need for a State medical journal; to it should only be added our felicitations to Dr. Neubauer and his associates for giving immediate substance to our hopes.

Any physician who has neglected his reading for a month and has suddenly faced a reproachful heap of periodicals will be tempted to make noises of fervent assent to the regular and predictable eruptions of those who violently believe that there are too many medical journals. But, after the echoes of the hallelujahs have died away, one is chilled by such propositions as that made some years ago by Henry Davidson in *Medical Economics* that the medical literature be restricted through limiting each specialty to two journals, or by the often repeated recom-

mendation that State Medical Association magazines be abolished. This sounds like a classic case of the old banality of an uncomfortable disease and a fatal cure.

In the first place, are there too many medical publications? Can there be too much knowledge? Is there such a thing as a plethora of facts? Only if a certain assumption is made. If a busy clinician feels that he must read word for word every article in the world literature related to his field, then there are surely too many journals. However, there is a word for this. It is obsessive. If any physician has set himself this Sisyphean labor, he had better put aside that last issue of the *Annals of Pipe Dreams* and hurry uptown to see one of his confreres. You know which one. Colleagues who complain on the other side that they can read only two journals thoroughly a month can perhaps get by with a remedial reading teacher.

What is the purpose of the medical literature? Fundamentally to instruct, to call attention as quickly as possible to new data which will assist the practitioner in caring for the sick. Secondly, to provide channels of communication between physicians interested in common problems. Thirdly, to create the formulated body of knowledge of medical science. Fourthly, to reinforce the linkages that make organized medicine organized, through reports of societies and meetings and through discussion of the many matters which, though non-professional, are of vital concern to all doctors.

The last of these functions causes little contest, though there are those who disagree. A let-

ter-writer to another periodical has complained of being obliged to receive the *Journal of the American Medical Association* because of membership in the American Medical Association. The gentleman may be reminded that he is still a physician, no matter how narrow or famous a specialist. His attitude is divisive; and the body of Medicine badly needs to remain whole. Every M.D. should read the *Journal of the American Medical Association* and the publication of his State Association for news content and for general medical information. If we must lay down rules, perhaps there should be one compelling the specialist to study a given number of articles outside his own field every month.

Medical periodicals are not ephemeral. "Books," said Thomas Jefferson, "constitute capital; a library book lasts longer than a house; it is not, then, an article of mere consumption, but it is capital." This is true of medical journals; more than medical books they represent the invested funds of Medicine. In them live boundless resources, ready for release by the simple act of reference. Journals are meant to be kept. The vandalism of physicians who throw periodicals away unopened is shocking. Even in large cities with ample library facilities doctors treasure their own collections of the literature. Complete files in the University stacks are often less useful than the loved volumes on one's own shelves.

Journals are irreplaceable as the open roads of scientific interchange. But every article is not meant for every reader. At the extreme one could easily defend the position that a paper that is read by a single interested confrade was worth the writing. You may have never heard of your kindred spirit, and he may live a half a world away, but you are brothers. Remember, after your first published effort, when you got a reprint request postcard from Tegucigalpa or Helsinki? The very existence of numerous medical periodicals provides representation for varied scientific interests and local problems and is a strong force for true internationalism in the profession.

Most important of all is the educational action of journals in constantly supplying new tools to implement the physician's therapeutic need. The sacrifice of a number of publications would in effect reduce post-graduate instruction. Of course, the literature is repetitious. It is bad enough to burn printed information; it is worse

to prevent its birth in type. Who are the omniscient editors who will decide which elite papers are entitled to contracted journal space? And what criteria will they use? The research that some find "mediocre" may throw light on a little project of mine. The "routine" case report may jog my memory and save a patient's life. The "monotonous" review of the literature is what I ordered — just so I do not have to dig out the source material for myself.

Not that journals cannot be improved in the interest of more efficient service to the subscriber. Adequate summaries, in several languages, could be the rule for all contributions. Many scan summaries as guides to what they want to study more thoroughly. More careful organization of articles, so one could skim them quickly without getting bogged down in detail, would add to the speed of reading. But the final need is good reading habits on the part of the doctor. And that, as Mr. Kipling said, is another story.

Each specialty should have an abstracting journal. *Excerpta Medica* meets the need only in part; its condensations are too brief and capriciously classified. Abstracts in the *Journal of the American Medical Association* and the specialty organs are too selective to grant broad coverage. A system of publication on filing cards, like those issued by the Wistar group of periodicals, might be the most efficient answer to the problem. The physician would then have the nucleus for a reference file of bibliographies in his field. With photostats and microfilms, with reprints, with the *Index Medicus* now published monthly by the National Library of Medicine, and with one's own books and bound periodicals, the clinician could collect a personal library of tremendous utility. Yes, it would cost a little, but can the doctor's money find better use?

As a practicing physician I am against any move which would reduce the amount of information available to me. I would risk a lot of redundancy to assure a rich and free medical press. If I must choose, I would rather see more journals than fewer. And one of the first I want is my own State Association publication.

Osler once wrote, "It is astonishing with how little reading a doctor can practice medicine, but it is not astonishing how badly he may do it." An argument against curtailment of the professional literature is on the side of the angels. Or at least of Sir William Osler.

REGISTRATION — 1960 ANNUAL MEETING

1021 Central Towers Building
Phoenix, Arizona

County Medical Society	Total Membership	No. of Members Registered	% of Members Registered
Apache	3	2	66%
Cochise	26	4	15%
Coconino	23	10	43%
Gila	20	5	25%
Graham	8	4	50%
Greenlee	6	2	33%
Maricopa	596	211	35%
Mohave	3	1	33%
Navajo	7	5	71%
Pima	289	72	25%
Pinal	27	9	33%
Santa Cruz	8	5	63%
Yavapai	20	5	25%
Yuma	33	2	6%
Non-Members — Including Guest Orators, VA, Interns, Military, Out-of-State doctors, etc.	68		
TOTAL REGISTRATION OF MEDICAL DOCTORS .405			

**SUMMARY OF ANNUAL REPORTS
BY COMMITTEE ON REPORTS
AMA ANNUAL MEETING**

Scottsdale, May 4, 1960

The Committee on Reports recognizes that our delegates have received the complete committee reports and have thoroughly digested all the details. However, it has been our charge to summarize such reports for final reading on the floor of the house. The committee apologizes for any omissions and hopes that the authors of the various reports will understand the difficulty in summarizing and digesting a report that contains issues and discussions all of which are important. The committee would be remiss if it would not congratulate the various committees who, over the past year, have been most diligent in their efforts and have sacrificed themselves and their time way and beyond the call of duty. As Chairman of Committee on Reports I should like to thank the individual members of my committee for the effort in drawing up the summaries as will be given.

REPORT OF THE DELEGATE TO AMA

The delegate to the American Medical Association, Dr. Jesse D. Hamer, comments upon the honor and pleasure of his twenty-five year tenure in this office and other offices of our association. The Committee on Reports would be remiss if it were not to point out to the House of Delegates the extremes of sacrifice

shown by this officer over these many years. All meetings have been attended with the exception of two.

All meetings were attended this year to the House of Delegates of the AMA, the meeting at Atlantic City in June and the Clinical Session in Dallas in December. Other meetings that were attended were the conference at Salt Lake City in April, 1959, conference at Atlantic City in June, 1959; workshop in Ann Arbor, Michigan June, 1959 sponsored by the HEW, Washington, D. C. Also a meeting was attended in April, 1959 with the AMA and Senator Goldwater. Several meetings were attended in Arizona. All of these were concerned with the problem of the aging and the aged.

A meeting was attended July, 1959 before the U. S. House Ways and Means Committee to file and present a statement against the Forand Bill.

A summary of the activities of the above meetings were presented to the Professional Committee of our association. The Committee on Reports moves that this portion of the report with singular attention to a devoted, honorary servant of Arizona Medicine, Jesse D. Hamer.

**REPORT OF NORTHEASTERN
DISTRICT DIRECTOR**

The District Director points out the increase in population in the counties of Navajo, Apache and Gila and the need for more physicians is

in evidence. The Committee urges every member of the State Association to attempt to interest younger men in practicing in smaller towns especially in the areas mentioned. It is felt by the Director that the next candidate for membership of the Board from this area of Arizona should be selected from Gila County, which has not been represented for some nine years.

REPORT OF NORTHWESTERN DISTRICT DIRECTOR

The Director reports the formation of a Northern Arizona Academy of General Practice and completion of the Northern Arizona Medical Seminar which is to be held again this year. The initiation of investigation of care of civilians by Military Medical Officers at the Navajo Ordnance Depot Hospital at Belmont was noted. The District Director has been working with officials at Arizona State College, Hospital Administrators, Nurses and Laity to promote two year nursing course at the College in Flagstaff.

REPORT OF SOUTHWESTERN DISTRICT DIRECTOR

"All quiet on the Southwestern Front!!" All "polio shots" campaigns were handled by the physicians — no unions were called on to aid in our program.

REPORT OF SOUTHERN DISTRICT DIRECTOR

The Director from the Southern district has attended all the Board of Directors meetings as well as meetings of local medical society throughout the year. As Chairman of the Professional Liaison Committee his activities have been voluminous in that respect and all meetings were attended. Nothing unusual in the district at large is worthy of report.

REPORT OF CENTRAL DISTRICT DIRECTOR

The Central District Director, even in face of personal illness, has been kept well informed of the activities in his district and the most recent meetings have all been attended. The Director commends the tireless efforts of our Executive Secretary, Mr. Robert Carpenter and of the entire Central Office force. Through their help he was able to carry on his charge of office in an excellent manner. The Director reports that the year in regard to the Central district was most quiet and there were no problems of

unusual magnitude.

REPORT OF GRIEVANCE COMMITTEE

A total of 16 complaints were directed to the Grievance Committee. Of this number, 3 were ultimately withdrawn by the plaintiff, 9 were referred to the proper component county medical societies and 2 were brought before a meeting of the committee and officially heard. Two are pending before the State Committee. Two cases heard by the committee were reported to the Board of Directors with recommendations which were upheld by that body.

The Grievance Committee feels compelled to request the attention of every physician to recognize that public confidence in organized medicine must be maintained. Committees must be willing to perform delicate and sometimes most difficult tasks. Component county medical societies must accept their responsibility and act upon a complaint fairly and with a minimum of time or the effectiveness is lost or at least questionable. Your Grievance Committee in keeping medicine's house in order is maintaining public confidence in the profession as a whole. The Committee requests that physicians never lose sight of the fact that today, as never before, a physician's every action reflects not only on himself but also upon the entire profession.

REPORT OF HISTORY AND OBITUARIES COMMITTEE

Fourteen members of the Arizona Medical Association, Inc. were lost to the Association through death from May 1, 1959 to the present. The committee reported with satisfaction that the association has caused to be bound in 6 volumes and filed in the central office of the association a collection of medical, historical material pertaining to Arizona which was collected and left by the late Dr. Orville Harry Brown. The committee also reported that Miss Eleanor B. Sloan, historical secretary of the Arizona Pioneer's Society volunteered to help and cooperate with members of the association who wish to use material in and from the library of that society for study and research into matters pertaining to the history of medicine in Arizona. The committee recommended that Miss Sloan be given appropriate recognition and thanks for her offer and that this offer be given suitable publicity through Arizona Medicine so that members of the association might become aware of this opportunity.

REPORT OF THE INDUSTRIAL RELATIONS COMMITTEE

The Industrial Relations Committee has met at monthly intervals except for the month of August. Basic activity of such committee is for the most part in counseling the claims department and the department of fees of the Industrial Commission of Arizona. The Committee reports the impression that many of the problems which arise in administration of fee schedule result from misinterpretation of the rules which are set forth in the fee schedule, or a misinterpretation of the intent of the industrial law as it pertains to medical care. The committee feels that with further experience in the use of the relatively new fee schedule that the problems for this committee will gradually decrease. The committee wishes to commend the physicians in the State of Arizona for the provision by them of excellent medical care for the industrial employee.

SUMMARY REPORT OF LEGISLATIVE COMMITTEE for

House of Delegates Meeting, May 1960

One of our most important committees dealing with organized medicine of the state and the legislature is our Legislative Committee. This committee has been very active. It has been necessary for them to spend many hours studying important legislation in the past. At one of the early meetings they considered a number of legislative matters and received some eight in number: four of them dealing with the Department of Health, one dealing with the Corporation Commission, another dealing with fluoroscopic shoe fitting and others dealing with related medical problems, particularly with the problem confronting doctors in Coconino County and the Navajo Ordinance Depot.

One of the most important measures on national legislation is the problem of the Forand Bill and this committee along with other committees of the organization as well as the President waged a battle on the county, state, and national levels.

This committee submitted an addendum after the Second Regular Session of the Legislature indicating that the committee actively supported two MUST legislative measures which became laws relating to the Superintendent of the State Hospital and to the Commissioner of Public Health.

The Legislative Committee also followed six other bills in which the Association was interested and these were likewise enacted into law: an Act relating to Non-profit Corporations; an Act making a supplemental appropriation to the State Department of Health for the State Tuberculosis Sanatorium; one making an appropriation for planning and construction of a tuberculosis sanatorium; one relating to the installation of necessary equipment for the Southern Arizona Branch of the State Laboratory; an act relating relating to Public Health, defining a tuberculosis person; and an act relating to narcotics.

Some 22 bills in which the Association did not specifically give direction were followed by the committee, died and were not enacted into law.

SUMMARY REPORT OF MEDICAL ECONOMICS COMMITTEE for

House of Delegates Meeting, May 1960

The Medical Economics Committee is one of the active committees of the State Medical Association. With the revision of the By-Laws this committee is made up of a number of sub-committees.

The work begun by Dr. Caldwell's committee on the Industrial Fee Schedule was concluded by the Sub-committee on Fees and Contractual Medicine of the Medical Economics Committee. They investigated and studied the problems and arrived at the following conclusions:

This sub-committee is in favor of the employment of a relative value scale for the setting up of average fees for surgical and medical procedures, keeping in mind the traditional principles of the private practice of medicine with its free choice of physicians and the free acceptance of patients by the physicians. The relative value scale may be adopted from the California Relative Value scale, modified to suit the needs of Arizona.

This average fee schedule is to be available to all insuring groups in their development of costs for prepaid medical and surgical care insurance. Special consideration is to be given to the problems of the needy retired and aged senior citizens. The average fee schedule is to be related to the cost of living index in any future adjustments.

Dr. Lentz's Sub-committee on Insurance has been studying problems relative to the Simpson-Keough bill.

The Sub-committee on Medicare had a relatively inactive year.

The Sub-committee on Federalized Medicine has not been active.

REPORT OF PROFESSIONAL LIAISON COMMITTEE

With newly-organized sub-committees in nine areas of vital interest, the Professional Liaison Committee, under the able chairmanship of Dr. Steen, achieved much and prepared the soil for future achievement on behalf of Organized Medicine in Arizona. Subcommittee highlights include the following:

1. PUBLIC HEALTH:

Newly created by this house of delegates last year, in cooperation with the legislative committee, and widespread local physician liaison with the legislators, a start on upgrading the State Health Department was achieved. This subcommittee recommends appointment of local county liaison committees to local public health departments; recommends physician and local public health department direction of Polio immunization, rather than lay group sponsorship.

2. American Medical Education Foundation:

This subcommittee reports that many State Medical Societies have adopted our Annual Dues increase plan for support of AMEF. In some cases, this amounts to \$25 per member, whereas in Arizona it has amounted to \$10 annually since 1957. Additional monies have been raised by the Arizona plan for gifts at Christmas, and through efforts of the Women's Auxiliaries.

3. Governmental Medical Staffs:

Has investigated an unhealthy practice at the Naval Ordnance Depot at Flagstaff. The Medical cadre has been not only caring for the military personnel, but serving some four-hundred plus civilian employees and their dependents. It is desired that this be discontinued, as there are adequate civilian medical facilities and practitioners in Flagstaff. A protest memorial to the proper designated officials is under study.

4. Schools:

Prepared exhaustive study of school health, encompassing the aspect of (1) Delineation of health needs. (2) Follow-up and interpretation. (3) Care of emergency illness and injury. (4) Disease prevention and control.

4. Auxiliary.

The auxiliary, after study, decided to continue scholastic loan funds in fields of nursing, gradu-

ate nursing, and medical technology.

Other subcommittee and the major committee reports are also in the hands of the delegates.

REPORT OF THE EDITOR AND PUBLISHING COMMITTEE

Previous to 1959 Arizona Medicine was published by Mr. McMeekin. The Editorial Board and Publishing Committee believed that a dissolution of the ties with the above publisher be obtained and in 1959-1960 Arizona Medicine was published in the office of the editor. When the reorganization is complete it is plausible that the journal should be entirely self-sustaining and even paying part of the expenses of the state organization.

At present the business office of the journal is at central office run by Mr. Paul Boykin. The editor's office is 720 North Country Club Road, Tucson, with a full time secretary. Make-up, art etc., is aided by the Press Bureau of the University at Tucson, Mr. DeVries does proof-reading for which he is paid, Doctor Ortiz does proof-reading on Spanish articles for no pay.

Fundamentally the editorial staff is as follows: Louis Jekel, M.D., History; Leslie Smith, M.D., editorials; Clarence Robbins, M.D., Richard Dexter, M.D. and Andre Bruwer, M.D., editing of original articles; Doctor Fonseca, liaison. Printing is done by the Lebeau Printing Company who underbid nearest competitor by 25%.

The journal has been advanced \$8000.00 which will be repaid. The Board of Directors has requested a budget for the coming year. Although there may be some inadequacies, due to lack of publishing experience, a budget is submitted attached.

Like other state journals a subscription price of \$3.50 to \$5.00 is recommended, and likewise the mailing of the journal to members of the Medical Society of the United States and Mexico will cost about the same.

The transition we have gone through has not been easy. The negotiations of this transfer are not complete and legal counsel is necessary to complete it. Libel insurance has been purchased and will be carried.

We recommend that the Association offer prizes to the young men in medicine in our state to submit original articles. A review of the literature on treatment of skin cancer, rheu-

matoid arthritis, asthma, etc., which are particularly appropriate in this region, is recommended.

The Committee on Reports wishes to point out to the delegates the extremely difficult and trying times that have confronted the Editor, the Publishing Committee, and the central office with this transition. The details and problems are so complex and many that it has taken, in the mind of the committee, a rare individual to pursue patiently and without bursts of anger, work which will ultimately give us a journal of which we can be proud. The committee wishes to applaud Dr. Neubauer and his staff as well as the central office for the magnificent work and display of self-control.

REPORT OF THE PRESIDENT-ELECT AND SCIENTIFIC ASSEMBLY COMMITTEE

The duties of the president-elect are basically twofold, namely, member of the Board of Directors, and Ex-officio member of all duly constituted committees. Secondly he is charged with the Scientific Assembly Committee in the formation of the annual meeting program. The Chairman thanks the members of his committee for their diligent and imaginative attention to the task of such committee. The Chairman recommends that in the appointment of the committee members that the Chairman of the Professional Committee and Publishing Committee should be considered. It is further recommended that as a member of the scientific committee one of the members of the program committee for the Arizona Chapter of Arizona Academy of General Practice should be considered.

The committee on reports again would be remiss were it not to congratulate the Chairman and members of this committee for their tireless efforts leading up to our present assembly. This meeting has all the appearances of being not only scientifically of great value but it apparently has many unique aspects. As has occurred many times in the past we can look with interest to the imaginative doing of our esteemed and scholarly president-elect.

REPORT OF THE CENTRAL OFFICE ADVISORY COMMITTEE

The committee reports a change of the central office location. It reports assimilation of business management of Arizona Medical Journal and has clarified, and in some instances limited, the services required of the Executive Secretary in serving standing and subcommittees. Legal

services needed by our association in 1959 and the cost thereof has been reviewed, as well as has the bonding coverage of officers and employees of Arizona Medical Association. Budgetary and accounting problems which will become acute in the future as result of the growth have been considered and are under further study. The committee recognizes tremendous increase in the volume of work assigned to the Central Office and thanks the Executive Secretaries and Central Office personnel for their untiring efforts.

REPORT OF THE PUBLIC RELATIONS COMMITTEE

The public relations committee has continued several programs of the years past. Central Arizona Scientific Fair, Southern Arizona Science Fair, Northern Arizona Science Fair, each offered \$50.00 in prizes for outstanding young scientific efforts. The committee rejected the opportunity offered by the Arizona Press Club to participate in the annual rewards program inasmuch as the program has excluded prizes for good journalism in the field of medicine. Information pamphlets were made available for physicians of the state and rural health articles sent out by the AMA have been published and received with enthusiasm.

REPORT OF BENEVOLENT AND LOAN FUND COMMITTEE

Two meetings were held by the committee and applications for loans were considered at both meetings. Five loans totaling \$5,400.00 were approved and two others for a total of \$3,000.00 approved pending enrollment in medical school. The committee recognizes the difficulty attendant upon organization of such loans in the past but believes that future loans can be made with minimum difficulty and made on the basis of need and satisfactory scholarship attainments. It was further determined by the committee that the earnings of the benevolent loan funds from April, 1956 should be set aside for needy members of the Arizona Medical Association, Inc.

REPORT OF PROFESSIONAL COMMITTEE

This extremely active and important committee was chairmaned by Dr. John Swartzman. To he and his committee we owe a sincere debt of gratitude. Four meetings were held during the year.

The problem of the aged was studied by the subcommittee and upon committee recommendation resistance to the Forand Bill was submitted

as a recommendation. The problem of the aged is being still further studied as to a workable solution.

A major project that has continued throughout the year has been inspection and evaluation of the North Mountain Hospital in Phoenix. A report was written and submitted to the Board of Directors for its consideration.

The problem of possible repeal of that portion of the state statute requiring examination as to pre-marital serological test was studied and a recommendation made to the Board of Directors. A resolution was written and forwarded to such Board for their consideration and possible presentation to the House of Delegates.

Problem of rehabilitation is being considered currently and progressively and will continue to be a matter of study by the committee. The committee is also in the process of studying crippled children's work in the state referable to cataloging and appraising the facilities for the care of the crippled. It is anticipated that a complete report will be available next year.

One major project that was considered in great detail by the Committee was the practicability of considering closed panel medicine, 3rd party medicine and physicians fees. Further consideration is anticipated in the future and the matter was referred to the Fee and Contractual Medicine Committee of the state association for further consideration.

REPORT OF CHAIRMAN OF BOARD OF DIRECTORS

The Board of Directors of Arizona Medical Association, Inc., held five formal meetings during the fiscal year. At such time over one hundred fifty major items of business as well as changes in membership classification etc., were taken up. The reports of the various committees were reviewed.

The Board of Directors wishes to comment most favorably upon the activities of the various committees who have spent literally hundreds of man hours in deliberation and in the preparations of conclusions and recommendations. Their unselfish devotion to medicine and the Arizona Medical Association is worthy of the highest commendations.

REPORT OF THE VICE PRESIDENT

The Vice President attended all meetings of the Board of Directors serving as Chairman. He points out that no other specific duties were

required because of the diligence of the President, Dr. Melick.

REPORT OF THE SECRETARY

Since April, 1959, 55 new members have been admitted from the component county medical societies. The majority were from Maricopa and Pima counties while the other counties fluctuated slightly. There are now 1052 members, compared to 997 last year. Of these 969 are active members, 29 are service members and 54 are associate members.

The Board of Directors held 5 meetings last year.

The Secretary reports that the officers and all committees have been extremely active as evidenced by work done, meetings held and reports and recommendations written.

WOMAN'S AUXILIARY PRESIDENTS' REPORTS

MARICOPA COUNTY

The Woman's Auxiliary to the Maricopa County Medical Society has concentrated much of its efforts for this year on enlightening its members and the general public on the Forand bill and the reasons that the American Medical Association and all clear thinking people oppose it. Dr. D. W. Melick, President of the Arizona Medical Association, spoke at our luncheon meeting in November. He emphasized the importance of reaching the public and the nursing profession and educating them to the dangers of the Forand Bill. Auxiliary members wrote letters to their Congressmen opposing the bill. During the first part of December the Legislative Committee held a special meeting of the presidents and legislative chairmen of the various women's clubs of Phoenix. At this meeting a panel, moderated by the Honorable John Rhodes, Republican Representative, discussed the limitations, faults, moral and economic drawbacks of the Forand Bill. In March a resolution opposing the Forand Bill was passed by the members. A copy of the resolution was forwarded to our Congressmen and Senators in Washington.

Membership in Maricopa County to date this year numbers 340.

Auxiliary programs have followed the suggestions of national with a mental health program panel discussion, a report on "Ancient Healing Cults", speakers emphasizing the dangers of the Forand Bill, public relations emphasis and co-ordination with the Phoenix Art Museum and

the Phoenix Symphony Orchestra, and social activities and projects.

The Auxiliary again sponsored the AAPS Essay Contest with awards presented to the three winners. Fund-raising projects were sponsored for the American Medical Education Foundation, Para-Medical Careers program, the Maricopa County Child Guidance Clinic and the Visiting Nurse Service. Christmas toys were donated to the Community Council Toy Shop.

Through the combined efforts of the officers and special and standing committees as well as the general membership, the aims and purpose of the Auxiliary have been successfully carried out.

Mrs. Thomas O. Rowley, President
1959-1960

PIMA COUNTY

The accomplishments of this year have been due in great part to the wonderful working "togetherness" of the Board of Directors and the membership plus support from the County Medical Society.

Current membership numbers 223, an increase of 15%. Social activities for newcomers included a coffee and a dinner dance. In November the Auxiliary sponsored a reception at the U of A Student Union for Dr. Randolph Lovelace II, following the Sunday Evening Forum. His topic was "Man in Space."

In the hospitals in Tucson we have 35 foreign residents and interns. This year the Auxiliary set up a program for this group, assigning each one to a doctor and his family, asking them to entertain the resident or intern in their home so that they might become more familiar with our customs and the American way of life.

In November our State officers reported on the Chicago conference. For other programs we elected to highlight three phases of auxiliary work: Safety, Community Service and Paramedical Careers. The program on Safety was a panel, "The High School's Safety Council." The Community Service program was a joint meeting with the Southern Arizona District Dental Auxiliary, and the subject was "State and Local Action on the Youth Studies." The subject of our March meeting, a panel discussion, was "Opportunities in Paramedical Careers."

Fund-raising projects were sponsored for Paramedical Careers and the American Medical Education Foundation through a fashion show,

benefit luncheon, Christmas bazaar, bridge marathon and sales of greeting cards and note paper.

Members of the Auxiliary were invited to two dinner meetings of the Medical Society. On the one occasion a film on Socialized Medicine in England was presented; at the other Dr. Russell Cecil was the guest speaker, his subject, "Rheumatoid Arthritis."

At our annual meeting 20- to 25-year members will be honored.

Mrs. Max Costin, President
1959-1960

YAVAPAI COUNTY

The objectives set forth at the beginning of this year have been met, and I feel surpassed, due to the assiduous effort of each member of the Woman's Auxiliary to the Yavapai County Medical Society. Co-operation was found with abundance, and productivity was the result. With the small membership of this auxiliary I feel our potential has been approached as never before. We would like to create fellowship and understanding within our group in conjunction with our auxiliary projects and would like to feel this has been a goal met.

For the past eight years this auxiliary has sponsored and delegated duties for the annual Charity Ball given in December. This is a public affair, and proceeds have been designated for purchase of hospital equipment at the Prescott Community Hospital. This year the event brought forth the greatest total to date. We were greatly aided by the Hospital Auxiliary.

One of our fund-raising projects, our annual rummage sale, netted an increase over past years. Another was sponsored for the American Medical Education Foundation.

For "Health Careers Recruitment Week", a tour of the Whipple Veterans Administration Center was planned for approximately thirty girls and boys and proved highly successful.

Programs at regular meetings have included a Civil Defense film and a Safety program concerning "Driver's Training Course" in the high school.

Social events included a family picnic early in September and potluck dinners at regular meetings. The potluck dinner at the April meeting was shared with the wives of local dentists as our guests.

These are a few of the projects we have undertaken for the year. I could hope that along with

the visible and noteworthy accomplishments of this fine group of doctors' wives, friendly relations were cultivated, rapport and mutual understanding were gained and that we excelled in our assistance to the medical society.

Mrs. Ray P. Inscore, President
1959-1960

LOCATION OPPORTUNITIES

ASHFORK — Population 700. North centrally located — Railroad center. Contact the Women's Club, Ashfork, Arizona.

BAGDAD — Population approximately 2,000. Opportunity for GP who is willing and able to do obstetrics and general surgery. Mining community. New 12-bed hospital. Excellent income possibilities with initial guarantee. Second doctor needed due to increased volume of work. Excellent housing and schools. For further information, contact Richard G. Hardenbrook, M.D., Bagdad Hospital, Bagdad, Arizona.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R.N., Camp Verde, Arizona.

EL MIRAGE — Population 2,000 — and including the trading areas of Surprise, Youngtown, Peoria and Luke Air Force Base, the population is estimated at 7,000 to 8,000 persons. Opportunity for a GP due to retirement of doctor currently serving, with the possibility of school service. Climate is excellent, warm and dry. Office facilities are available and in the area surrounding El Mirage from Glendale (9 miles) to the east, and Wickenburg (35 miles) to the west, there are only two doctors to serve this community. The need for an M.D. and/or surgeon is very real and one should do very well. For information write Mr. H. Faulkner, Town Clerk, Town of El Mirage, El Mirage, Arizona.

ELOY — Need a doctor of medicine, preferably a GP. Population of 4,000 in farming community with several small towns near by. Located approximately midway between Phoenix and Tucson. Contact Howard H. Holmes, M.D., Eloy Medical Center, Eloy, Arizona.

GLOBE — Population 10,000 and including the mining and cattle areas of Miami, Superior, Ray, Hayden, Winkleman, Payson and San Carlos; population estimated at 30,000 persons. Located about two hours by car from either Tucson or Phoenix. No ENT man in the area. Ideal

climate, with the best area for outdoor activities. Contact Eugene R. Rabagliatti, D.D.S., 149 S. Broad Street, Globe, Arizona or A. J. Bosse, M.D., 245 South Hill Street, Globe, Arizona.

HOLBROOK — Population approximately 5,500 — elevation 5,080. Excellent opportunity for GP. Arrangements can be made to take over existing vacancy in practice. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Arizona.

MIAMI — Opportunity for GP — Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact R. V. Horan, M.D., Miami Inspiration Hospital, Miami, Arizona.

MORENCI — Mining community near New Mexico-Arizona border. Population 10,000. Has vacancy at hospital for GP. Contact C. H. Gans, M.D., Morenci Hospital, Morenci, Arizona.

PAGE — Population growing by leaps and bounds at the site of the new Glen Canyon Dam Project. Current estimates are 6,000 to 8,000 total. Only one M.D. is now located in Page and he has facility available. Located about 90 miles north of Flagstaff. Building project is estimated to be concluded in ten years. Write Ivan W. Kazan, M.D., 6th Avenue & South Navajo, Page, Arizona, for full details.

PHOENIX — Excellent opportunity for Ophthalmologist or EENT man as associate. Contact E. G. Barnet, M.D., 1120 Professional Building, Phoenix, Arizona.

PHOENIX — Maricopa County has several excellent associations (salary or partnership) available in metropolitan Phoenix and surrounding towns in General Practice, Ophthalmology, ENT, Pediatrics and Anesthesiology. Neighborhood locations are also available for GP's. Contact Maricopa County Medical Society, 2025 North Central Avenue, Phoenix, AL 8-6901, advising medical training, military and family status, age, health, etc., and enclose small photograph.

PHOENIX — State Department of Health-Child Development Center. Opportunity for doctor of medicine (Pd) with three years' experience. Male or female. Monthly salary \$690 — full time. Operation includes (a) a doctor of medicine (Pd); (b) two or three psychologists on a consultant basis; (c) a psychiatric social worker; (d) a teacher specializing in child develop-

ment; and (e) clerical people as required. Scope: Mentally retarded or emotional problems of pre-school children. Contact Mr. Thomas Golden, Arizona Merit System, 11 North 17th Avenue, Phoenix (AL 3-3189).

ST. JOHNS — Seriously needs a doctor of medicine, preferably a GP, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Arizona.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. F. E. Babcock, President, Chamber of Commerce, 9112 West Van Buren Street, Tolleson, Arizona.

TUCSON — The VA Hospital is in urgent need of a General and Thoracic Surgeon. They prefer someone who is Board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., Director, Professional Service, VA Hospital, Tucson, Arizona.

WILLCOX — Population approximately 2,000 — and including surrounding area, the population is estimated at 4,000. Immediately in need of a general practitioner and surgeon; must have state license or be eligible for same. Opening for an associate. Office available approximately three (3) blocks from the twenty-bed hospital in community. Tucson, Arizona within a locality of 85 miles. Contact Sotero Antillon, M.D., P.O. Box 867, Willcox, Arizona.

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FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Arizona

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Arizona

Ira E. Harris, M.D., Miami Inspiration Hospital, Miami, Arizona

Charles B. Huestis, M.D., Box 928, Hayden, Arizona

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Arizona

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Arizona

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Arizona

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Arizona

JAMES CAREY PRESIDENT, INTERNATIONAL UNION OF ELECTRICAL RADIO AND MACHINE WORKERS

"Investigation shows that the majority of our retired elder citizens depend almost entirely upon federal old age insurance benefits for subsistence. While people seek desperately to put a few dollars aside for their old age, only one person in six who retires at age 65 has as much as \$5,000 in savings," Mr. Carey said.

"Costs of voluntary health insurance continues to rise at the rate of 10 per cent a year. It now costs about \$15 a month for the average retiree to cover himself and his wife for Blue Cross and Blue Shield. For most retirees who depend on old age benefits, this is an impossible price tag," he stated.



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* Marmell, M., and Prigot, A.: Tetracycline phosphate complex in the treatment of acute gonococcal urethritis in men. Antibiotic Med. & Clin. Ther. 6:108 (Feb.) 1959.



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*Medical Society of the
United States and Mexico*

PROGRESS NOTES

NOVEMBER MEETING

Word from Dr. Ignacio Chavez, our President-elect, in Guadalajara, indicates that plans are acquiring not only body and shape but momentum as well, for our next meeting in November. You are reminded, again, that on November 8, 9 & 10 we will be in Guadalajara; the 11 & 12 will be spent in Mazatlan. Committees have already been organized and we presume that, within the next few weeks, a preliminary announcement will be forthcoming from Mexico.

A travel agent is already at work in Tucson in connection with air travel, particularly looking into the possibility of a charter.

Dr. Chavez informs us that if there is a large enough contingent going by rail from Nogales, a special train can be set up for our convention. The same holds true for the trip between Guadalajara and Mazatlan.

Announcement of the meeting will appear in a large number of general national and regional journals from now on.

Our secretary informs us that he has received

approximately eighty applications for membership from various parts of the United States.

For those of you not acquainted with the current slate of officers, this is reproduced below:

President, Dr. W. R. Manning, Tucson, Ariz., U.S.A.

Vice President, Dr. Juan E. Fonseca, Tucson, Ariz., U.S.A.

Executive Secretary, Byron Browder, Tucson, Ariz., U.S.A.

Secretario Ejecutivo, Alfredo E. Patron, Mazatlan, Sinaloa, Mex.

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*Editorial***HIGH FEES FROM DOCTORS****ARIZONA DAILY SUN**

Friday, April 8, 1960

An insurance expert at the University of Arizona says that some doctors are charging exorbitant fees when they learn that their patients are covered by health insurance.

This isn't true of all doctors, by a long shot, but it's true of many.

Doctors as a group (and there are notable exceptions) are singularly lacking in public relations savvy. They create most of their own problems.

Their general lack of understanding of the public attitude toward them is apt to result in due time in some such setup as that in England — "socialized medicine."

If they want to keep free of federal controls it is going to be up to the doctors themselves to convince the public that everybody is better off without Uncle Sam sticking his finger in the pie.

But if doctors' fees continue to increase beyond a reasonable point, and if so many doctors continue their arrogant indifference to public opinion, they'll find to their sorrow that the public is not with them when the real fight over "socialized medicine" opens.

ARE FEES THE QUESTION?

The above editorial from the *Arizona Daily Sun* deserves thought and should not be ignored. By the excessive charges of a few, the entire medical profession is condemned, though many fees charged today are identical to those of a

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The Editor sincerely solicits contributions of scientific articles for publication in **ARIZONA MEDICINE**. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

- Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.

- Be guided by the general rules of medical writing as followed by the **JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION**.

- Be brief, even while being thorough and complete. Avoid unnecessary words.

- Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.

- Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.

- Exclusive Publication — Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.

7. Reprints will be supplied to the author at printing cost.

(The opinions expressed in the original contributions do not necessarily express the opinion of the Editorial Board.)

half century ago.

Medical expenses have not climbed as have other expenses. Pneumonia 25 years ago was treated with antisera, at great risk and a cost of \$200 to \$400, with a prolonged period of hospitalization. Today antibiotics at 50c per tablet are used, but \$15 to \$20 worth will suffice. The doctor's bill is for five visits at a cost of \$25 to \$35, instead of 25 visits at a cost of \$100. Greater charges per visit, but a much lesser charge per illness. Which is the cheaper and better treatment? The patient is paying to treat something he did not desire to have. Any price is too much!

A minimum of 10%, with an average of 15-20%, of medical accounts are uncollectible. What other business could survive such losses? The acceptance of the emergency case without question demands these losses of the doctor. This is in addition to the care of the indigent. Free clinics, county hospital service, etc., averaged a contribution of greater than \$6000 per year, per physician, in Philadelphia this past year. This must be paid by taxes if medicine is socialized.

However, while this defense is true for the accusations made against us, the medical profession is guilty of wanting to accept the status quo and to resist any alteration to the medical-economic realm.

We cannot be against everything. What do we favor? Should not positive steps be taken to aid the people in their selection of good insurance? Should not the AMA investigate all health insurance policies and put its "Good Housekeeping" seal of approval on the satisfactory policies and denounce the chiseler? This alone could help to re-establish the confidence of the people in the medical profession. The doctor would not be considered to be at fault when the insurance policy does not pay or pays in an inadequate manner.

People are willing to pay for health insurance. They do not want to pay for an illness. Help them select good insurance. Teach them to know the adequate health insurance policy; encourage a deductible clause. This will give them protection at a price they can afford to pay.

DWN

THERE IS A SCIENCE OF PSYCHOTHERAPY

You hear a lot about the art of psychotherapy

or the art of medicine in reference to the psychosomatic disorders. Let me submit for your consideration a few basic principles of the science of psychotherapy; skeletal foundations without which your efforts will be amorphous and amateur.

1) Your contract with the patient affords and invites absolute and positive honesty on his part. Your half of the bargain is the withholding of value judgements. You do not moralize. You do not threaten or encourage; you do not plead or exhort or criticize or praise.

Reality testing, the criterion of sanity, means literally what it says. In reality, as in science, there are only facts and they are interesting. They are never good or bad, right or wrong, mature or immature, selfish or generous, beautiful or ugly.

The most difficult and yet most essential realization is this: the idea of cause and effect is not in reality but is a construction of our mind, a primitive and fallacious oversimplification and projection.

When you project onto an event the cause-effect relationship, you secondarily introduce moral issues of blame or guilt, culpability or praiseworthiness. These issues are not realistic, not scientific.

In lieu of the (subjective) concept of cause and effect, we use the term synchronicity. (The rabbit died because it was a rabbit and because the wolf was a wolf and because they happened to be in the same place during (not at) the same time. The tubercle bacillus encountered the individual while it was virulent and he was vulnerable — and consumption developed in a set of changing circumstances, each item of which was synchronous with the others.)

2) In psychotherapy you do not make statements of "fact." You express interest and you ask questions. Your diagnosis is always open at the far end. Because there are so many variables within the individual and in the environment, because there are so many levels of past and current experience which are influencing the individual, you never come to a dogmatic and unjustifiable conclusion. (Below the functional disturbance is the psychoneurotic's rage; below the rage is the wish to love; below the wish to love is the unfulfilled need to have been beloved.)

3) You do not just ask questions and listen. It is true that ventilation, the fact of verbalizing,

helps patients to formulate and face their problems. Your more active task is the re-wording of the problems in non-neurotic terms. This is the re-education of the patient, not only by the example of your objective and realistic attitude, but by the feed-back of reason itself. (The patient demands: "I have to be sure, Doctor, do I or don't I love my husband?" And you reply: "Perhaps you do when he is cheerful and kind, and perhaps you don't when he is moody and fault-finding." And gradually you elicit a flexibility in the patient to correspond with the flux of reality. The patient asks: "Doctor, do you believe in God?" And you wonder aloud: does he mean the anthropomorphic God of some religious sects or the Higher Power of the scientist? Or isn't he ultimately asking about the efficacy of prayer? And you ask if there is anything culpably agnostic in the scientist's humility of not knowing?)

4) Constructive re-education requires familiarity with the mental mechanisms; repression, projection, conversion, reaction formation, etc. There are about fifteen, each overlapping with the others. Unconsciously employed at the intellectual level, these are mechanisms of self-deception. They are interposed between the mind and reality. The functional (physical) or emotional disturbance is synchronous with the distortion of reasoning. It is the habitual employment of these mechanisms that makes the neurotic seem complicated. He has complexes and is therefore complicated. He does not express his needs or his anger at their frustration by simple and direct means. This is the basis for the prejudice against the psychoneuroses. (What is the neurasthenic expressing in his fatigue? "I am without stimulus. I have nothing to look forward to." We could digress at book length at this point: Environment, cortex, mid-brain, pituitary, adrenal, energy, etc. Neurasthenia is not imaginary!)

5) Psychotherapy looks more to the future than to the past. Religious or ethical guilt accompanies what has occurred and awaits punishment and atonement. In psychiatry, the concepts of guilt and anxiety refer to that which has *not* been expressed, the unrealized potential of the individual.

The issue, the crucial point, is whether the individual is willing to assume all (100%) of the responsibility for the role he will play in his life.

Over and over again the patient will resist: "Doctor, I am ready to admit that it is partly my fault (a value term), but . . ." The patient who persists in attributing even part of his difficulties to some one or something outside himself (his childhood, his marriage, his job) can never attain the dignity and confidence of self-determination.

6) Psychotherapy asks of the patient to establish or re-establish his own ego-boundaries and then to participate in the event of creation. Outside your office is the world of chaos. There is no cause or effect, there is no right or wrong; there is no label which can be assertively fixed in the flow of time. ("Doctor, am I neurotic?" Well, perhaps you *were* when you reacted to such and such a situation in this or that complicated way. But you were not neurotic when you reacted to another situation with simplicity and took all of the responsibility for your reaction.)

We ask not what a person has been and not what he is. We ask what he is becoming. The stick outside the door is just a stick. Depending on its "hospitality" and its appropriateness, one can elect to use it for a weapon or for a crutch or for a part of a building. If you intend to use it for building, then you are becoming a builder and it is becoming something more than a stick. Everything takes on its order and meaning (everything becomes) by the use to which you (and you alone) will put it. The term "will" in this context is absolutely free and the individual is absolutely responsible in its exercise.

W. B. McG.

RETROLENtal FIBROPLASIA

A report recently received by the editor from the National Society for the Prevention of Blindness stresses the importance of low oxygen concentrations to premature infants to prevent retrorenal fibroplasia. It is universally accepted now that excessive concentrations of oxygen stimulates the occurrence of retrorenal fibroplasia in new-born infants especially prematures.

It would be wise to consider the following rules to reduce the incidence of this disease.

1) Administer oxygen only when there is respiratory distress.

2) Keep the oxygen concentration at 40% or less inside the incubator.

3) Discontinue the oxygen as soon as possible.

A.K.H.

*In Memoriam***KRAMER MARTIN GILBERT, M.D.****1882-1960****Kramer M. Gilbert, M.D.**

Dr. Kramer M. Gilbert of Chandler died in a Mesa Hospital March 6, 1960.

Born near Prairie City, Iowa, January 30, 1882, Dr. Gilbert graduated from the Drake University Medical School, Des Moines, in 1908. In June, 1909, he was married to Bessie E. Sanders of Carlisle, Iowa. Dr. Gilbert was licensed in Arizona in 1913. It is said that he was on his way to California when he stopped over in Chandler, liked the community, and stayed there.

Dr. Gilbert was a member of the Maricopa County Medical Society, the Arizona Medical Association and the American Medical Association. He was a past president of the Chandler Chamber of Commerce and first vice chancellor of the Knights of Pythias. He retired from active practice in 1957 and of late years found great interest in the growing of citrus fruit at Chandler Heights.

He is survived by his wife, Bessie; a son, Horace, of La Habra, California; a brother, and one grandchild.

RUSSELL JOHN CALLANDER, M.D.

Dr. Russell J. Callander, who practiced medicine in Tucson 20 years before World War II, died September 11, 1959 at his home in Solana Beach, California.

Dr. Callander was born May 25, 1892, in Ontario, Canada. He received his B.S. degree from the University of Chicago and his M.D. degree from Rush Medical College in 1919. His internship was served at the Norwegian Deaconess Hospital and the Cook County Hospital, both in Chicago.

In 1920 Dr. Callander came to Tucson and was associated with the Tucson Clinic for many years, practicing in the field of internal medicine and the sub-specialty of gastroenterology. During this time he studied for a year in Vienna.

Dr. Callander joined the Navy Medical Corps in 1940. After the war he moved to Mountain Home, Tennessee, where he was on the staff of the Veterans Administration Hospital until 1958. He then moved to California.

His widow, Mrs. Clara Callander, resides at 417 Glenmont Drive, Solana Beach, California. There are two daughters, Nancy, of San Diego, and Barbara, of Oregon.

RESOLUTION**PIMA COUNTY MEDICAL SOCIETY**

WHEREAS, by the death of Russell John Callander, M.D., the Pima County Medical Society has suffered the loss of one who was a member for thirty-seven years, and

WHEREAS, while Doctor Callander has not practiced in this city during recent years, he is remembered with affection and esteem by those who knew him and were his colleagues in medicine, be it THEREFORE

RESOLVED: That the Pima County Medical Society inscribe these sentiments in its permanent records, and convey to his family an expression of sorrow and sympathy.

GORDON JUDSON McCURDY, M.D.

Gordon Judson McCurdy, M.D., passed away on Sunday evening, February 14, 1960, in Good Samaritan Hospital, Phoenix, Arizona. He was born in Moulmein, Burma on October 30, 1902. His father was a missionary in Burma. When he was quite young the family moved to Nova Scotia. He received his Doctor of Medicine degree at the University of Michigan Medical School at Ann Arbor, Michigan, on September 20, 1927. His residency was served at the Dr. Ferris Clinic in Michigan. He practiced as a private physician in the specialty of E.N.T. in Providence, Rhode Island for seventeen years. He then moved to Miami, Florida. In January 1954 he received his certificate to practice in Arizona through reciprocity with the state of Florida. He was licensed in the states of Michigan, Rhode Island, California, Florida, and Arizona. His office was in the Professional Building, Phoenix. He was a member of the Maricopa County Medical Society, the American Medical Association, the American Laryngo-Rhino-Otological Society of the United States, which is one of the foremost societies in this specialty.

He had published papers on treatment of mastoid conditions. Fenestration for deafness was one of his accomplishments. He maintained an office at Prescott, where he was with patients two days of the week, and in Phoenix for the remainder of the week from 1955 until his death.

He had required insulin for diabetes for a number of years. The final episode was initiated by what is apparently a cerebral vascular accident and coma which may have been complicated by the diabetic condition.

He is survived by his wife, Nan, and two children by his first wife who are now of college age.

Dr. McCurdy was rather reserved, but a friendly individual whose patients trusted and appreciated him. He had a serious approach to the practice of medicine which tended to inspire his patients with confidence.

Howell Randolph, M.D.

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REFERENCES: 1. Yow, E. M.: Practitioner 182:759, 1959. 2. Yow, M. D., and Womack, G. K.: Ann. N. Y. Acad. Sci. 76:363, 1958. 3. Bunn, P. A., Baltch, A., and Krajnyak, O.: Ibid. 76:109, 1958. 4. Council on Drugs, J.A.M.A. 172:699, 1960.

BRISTOL LABORATORIES, SYRACUSE, NEW YORK

Topics of Current Medical Interest

RABIES FROM BATS

Hugh H. Smith, M.D., M.P.H.

For many years it has been known that rabies is transmitted by vampire bats in South America and Mexico. Asymptomatic infection of the salivary glands of vampire bats has been demonstrated for periods of as long as five months thus providing a reservoir for the maintenance of the virus in nature in the areas in which the vampire bat exists.

No vampire bats are known to be indigenous to the United States, although colonies of them have been discovered in Mexico about two hundred miles south of the border.

In 1953, rabies virus was isolated from an insectivorous bat killed while attacking a woman in Florida and during the following year from a similar bat under the same circumstances in Pennsylvania. Subsequently, rabies has been reported in insectivorous bats in eight states(1).

In Arizona, rabies was diagnosed in bats for the first time in 1957. A full report on the five known cases of bat rabies up to 1958 were published in *Arizona Medicine*(2). There were other reported instances of bats acting strangely in several parts of the state.

Quite recently, comes the first report of a fatal case of rabies that definitely incriminates a species of insectivorous bat as a source of the disease for man(3). A California woman picked up a bat lying on the ground near her home in Butte County. She was bitten on the middle finger of her left hand. She telephoned a veterinarian about treating the bat for an apparently broken wing. The veterinary physician suspected rabies in the bat and suggested that it be taken to the Health Department. The brain of the bat was examined and found positive for Negri bodies. Rabies virus was subsequently

isolated in mice from the bat's brain.

In spite of vigorous anti-rabies treatment, the woman came down with rabies on the 55th day following the bat bite and died eleven days after the onset of symptoms.

Just what role bats may play in the epidemiology of rabies is not yet known. It does appear that infected bats do pose a threat to man and other animals. A review of reports of human exposures in this country and Canada indicates at least seventy-five persons have been bitten by bats(4). In the majority of the cases the persons bitten appear to have exposed themselves by handling an obviously ill bat or by one whose behavior was definitely abnormal. Unprovoked attacks by bats are unusual.

During the period 1951-58, a total of 92 cases of rabies in humans were reported in the United States, of which only three were associated with exposure to bats. This low incidence indicates that the hazard of direct transmission of rabies from bat to man is minor compared with that of transmission from dogs and other domestic animals. There is a danger, however, and health authorities are suggesting that all bites of persons by bats be considered as possible exposures to rabies and treated accordingly. Every effort too should be made to warn people, especially children, not to handle bats that appear ill or those acting in a strange manner.

REFERENCES

1. Tierkel, E. S.: Recent Developments in the Epidemiology of Rabies, *Annals N. Y. Acad. of Science*, 70, 445-448, June 3, 1958.
2. Maddy, K. T., Cockrum, E. L., and Crecilus, H. G.: Bat Rabies in Arizona, *Arizona Medicine*, 15, 344-349, May 1958.
3. Humphrey, G. L., Kemp, G. E., Wood, E. G.: A Fatal Case of Rabies in a Woman Bitten by an Insectivorous Bat, *Public Health Reports*, 75, 317-326, April 1960.
4. Tierkel, E. S. and Arnestin, P.: The Present Status of Rabies in the United States. Proceedings of the U. S. Livestock Sanitary Assoc., Miami Beach, Florida, Nov. 4-7, 1958, pp. 248-252.

GASTRIC LAVAGE VS. EMESIS IN THE TREATMENT OF POISONING

In the first-aid or medical treatment of certain ingested poisons one of the chief measures involves the prevention of further absorption of the poison from the digestive tract. This may be achieved by two possible means, induced emesis or gastric lavage. In the case of first-aid treatment, the only course available to the layman for emptying the stomach is by means of induced vomiting. Included in the first-aid measures for poisoning as recommended by the Committee on Toxicology of the American Medical Association is the initial administration of large volumes of milk or water (1 to 2 cups for children ages 1 to 5; up to 1 quart for patients over 5 years of age) and the induction of vomiting by placing the blunt end of a spoon or finger at the back of the patient's throat or by giving 2 tablespoons of salt in a glass of warm water(1).

On the other hand, in the medical treatment of ingested poisons both induced emesis and gastric lavage are measures which may be employed by the physician. The technic to be employed for emptying the stomach in any given case of poisoning usually depends on factors such as the experience and preference of the physician, the nature of the ingested substance, and the availability of equipment. Little research has been done on the comparative efficiency of the two technics for the removal of swallowed poisons from the stomach and opinions differ as to which method is the more effective. For example, Goodman and Gilman(2) state, "The clinical stomach tube has relegated emetics to a deserved obsolescence." In contrast, an editorial in the Journal of the American Medical Association(3) cited the systematic investigation of Harstad and coworkers which challenged the efficacy of gastric lavage for removing swallowed poisons and concluded that it is generally inefficient and often valueless in cases of acute poisoning. These investigators further concluded that gastric lavage promotes passage of a poison into the intestine and suggested that the efficiency of lavage may be increased by the repeated use of relatively small volumes of fluid. They pointed out that lavage is usually ineffective if the poison had been swallowed for 4 hours or longer; the bulk of the poison leaves the stomach rapidly, especially in suicide victims, who often take it on an empty

stomach; and in conscious patients evacuation by emesis with the aid of apomorphine is superior to lavage.

Recently, Arnold and associates(4) evaluated the efficacy of lavage and induced emesis in the treatment of experimental sodium salicylate poisoning in dogs. Essentially, their procedure consisted of administering sodium salicylate to dogs and determining the amount of drug that could be recovered from the digestive tract by induced emesis or gastric lavage. Although the data obtained were not statistically analyzed, these investigators concluded that: (a) lavage within 15 minutes of salicylate administration is no more effective than vomiting induced within 30 minutes of poisoning; (b) 1 hour after administration of sodium salicylate, lavage is far less effective than induced emesis; and (c) spontaneous emesis is not as effective as induced emesis. One and one-half hours after salicylate administration, induced emesis is still somewhat effective and thus appears to be the preferred procedure for removing salicylate from the stomach. Undoubtedly, one of the most significant features of the experiment reported by Arnold and coworkers is the observation that neither lavage nor emesis, under the most optimal conditions, are consistent in effectiveness. Consequently, they suggested that all patients, after either form of treatment, should be carefully observed for signs of further drug absorption.

Another obvious disadvantage in the use of gastric lavage is the fact that poisonous material of large particle size, such as enteric coated tablets and mothballs, cannot be aspirated through a lavage tube. Despite the apparent advantages of induced emesis over gastric lavage in the treatment of ingested poisons, the procedure is not entirely adequate or without danger. For example, the marked increase in blood pressure during emesis may result in cardiovascular accidents(4, 5). The marked increase in the intra-abdominal pressure during emesis may be dangerous in pregnancy, hernias, and advanced peptic ulcers or other gastrointestinal erosions(5). Finally, the fall in blood pressure after emesis may be dangerous in young children and debilitated persons(5). Furthermore, it is well recognized that in cases of central nervous depression emetic agents not only may fail to exert their therapeutic effect but may

add to the depression. Apomorphine and, to a lesser extent, ipecac are capable of causing further depression.(4) Also, Boyd(5) has pointed out that ipecac is irritating to mucosal surfaces and may produce gastroenteritis if it is not ejected from the stomach. More recently, Allport(6) reported a case in which a 2½-year-old boy was given 15 ml of ipecac fluidextract over a 30-minute interval following the accidental ingestion of approximately 6 chlorpheniramine (Chlor-Trimeton) maleate tablets 4 mg. each. The boy then vomited violently for the next 8 hours. He continued to vomit intermittently for 2½ days and developed a tarry diarrhea which was benzidine positive. The author pointed out that emetine is apparently the alkaloid primarily responsible for the toxic manifestations of ipecac and for the similarity in the toxicity of ipecac fluidextract and ipecac syrup. He emphasized the difference between the two preparations; the fluidextract is approximately 14 times more potent than the syrup. Although the use of ipecac syrup as a possible first-aid measure for the treatment of poisoning has been suggested, the Arizona Poisoning Control Information Center does not condone the lay use of ipecac preparations for this purpose because of their potential toxicity.

Because of the paucity of adequate experimental and clinical observations and in view of the shortcomings inherent in both gastric lavage and induced emesis for the purpose of removing swallowed poisons from the stomach, the Arizona Poisoning Control Information Center is unable to recommend one method in preference to the other. The choice of procedure for preventing further gastrointestinal absorption in any particular case of poisoning must necessarily depend on the condition and health of the patient, the nature and relative toxicity of the noxious substance, and the experience and preference of the attending physician. After evacuation of the stomach by either method the patient should be carefully observed for signs of additional drug absorption and treated accordingly. In general, when the patient is comatose or if the poison is a petroleum distillate or corrosive, evacuation of the stomach by either gastric lavage or induced emesis should be avoided. For poisoning cases in which these two procedures are contraindicated consideration should be given to the possible use of dilution, neutralization, or catharsis.

STATISTICS OF 101 POISONING CASES IN ARIZONA DURING FEBRUARY 1960

AGE:

71.2% involved under 5 year age group	(72)
1.0% involved 6 to 15 year age group	(1)
12.9% involved 16 to 30 year age group	(13)
7.0% involved 31 to 45 year age group	(8)
7.9% involved over 45 year age group	(7)

NATURE OF INCIDENT:

80.2% accidental	(81)
19.8% intentional	(20)

TIME OF DAY:

44.6% occurred between 6 a.m. and noon	(45)
23.8% occurred between noon and 6 p.m.	(24)
14.8% occurred between 6 p.m. & midnight	(15)
1.0% occurred between midnight & 6 a.m.	(1)
15.8% were not reported	(16)

OUTCOME:

99.0% recovery	(100)
1.0% fatal (aspiring poisoning)	(1)

CAUSATIVE AGENTS:

Internal Medicines	Number	Percent
Aspirin	35	33.3
Other Analgesics	7	6.7
Barbiturates	13	12.4
Antihistamines	2	1.9
Laxatives	2	1.9
Cough Medicine	0	0.0
Tranquilizers	4	3.8
Others	17	16.2
Subtotal	80	76.2
External Medicines		
Liniment	1	0.9
Antiseptics	0	0.0
Others	0	0.0
Subtotal	1	0.9
Household Preparations		
Soaps, Detergents, etc.	0	0.0
Disinfectants	0	0.0
Bleach	4	3.8
Lye, corrosives, drain cleaners	0	0.0
Furniture and floor polish	0	0.0
Subtotal	4	3.8
Petroleum Distillates		
Kerosene	3	2.85
Gasoline	0	0.0
Others (lighter fluid)	3	2.85
Subtotal	6	5.70
Cosmetics		
Insecticides	0	0.0
Rodenticides	0	0.0
Others	0	0.0
Subtotal	0	0.0
Paints, Varnishes, Solvents, etc.		
Plants	4	3.8
Miscellaneous	0	0.0
Unspecified	5	4.8
TOTAL	105*	100.0

*The total number of causative agents exceed the actual number of poisoning cases since in certain individual poisoning incidents more than one agent was involved.

REFERENCES

1. Recommendations of Committee on Toxicology on First-Aid Measures for Poisoning, J.A.M.A., 185:686, 1957.
2. Goodman, L. S. and Gilman, A., *The Pharmacological Basis of Therapeutics*, 2nd edition, The Macmillan Company, New York, 1956, p. 1964.
3. Editorial: Value of Gastric Lavage in Treatment of Acute Poisoning, J.A.M.A., 183:545, 1947.
4. Arnold, J., Hodges, J. B., and Barta, R. A., Evaluation of the Efficacy of Lavage and Induced Emesis in Treatment of Salicylate Poisoning, Pediatrics, 23:286, 1959.
5. Boyd, E. M., Drugs Acting on Mucous Membrane and Skin, in: *Pharmacology in Medicine* by Drill, V.A., Ed., McGraw-Hill Book Company, Inc., New York, 1958, p. 694.
6. Allport, R. B., Ipecac Is Not Innocuous, J. Dis. Child., 98:786, 1959.

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SIXTH ANNUAL CONFERENCE OF MENTAL HEALTH REPRESENTATIVES OF STATE MEDICAL ASSOCIATIONS

The above titled meeting, sponsored by the Council on Mental Health of the American Medical Association, was held in Chicago, Illinois November 20-21, 1959. The general theme of the program was "Organized Medicine in its Relationship to the Hospitalized Psychiatric Patient." Plenary sessions began and ended the conference; otherwise, the participants were divided into six groups where various subtopics were explored in a seminar fashion.

The eclectic nature of these conferences is well documented by the fact that on one occasion Marion Kenworthy, M.D., then president of the American Psychoanalytic Association, and Jonas Salk, M.D., of vaccine fame, both participated in one seminar meeting.

The cost of mental illness is staggering. Although half of all hospital beds are occupied by psychiatric patients, only seventeen per cent of hospital personnel work in mental hospitals. Improving the lot of state mental hospitals sufficiently to but barely meet the standards set up by the American Psychiatric Association would probably more than double the present cost of patient care. It appears that the A.M.A. has been lax in its public education measures as concerns the mentally ill; the result being that, although "Cadillac" medical care is demanded for the indigent, physically ill, no such thought or consideration is afforded the mentally ill.

Full utilization of present-day knowledge in the care and treatment of psychiatric illnesses necessitates closer communication and collaboration between the state mental hospital, the private mental hospital, the general hospital, and the psychiatric out-patient clinic. To this end, it is generally agreed that the addition of more hospital beds to our already too big state mental hospitals should be discontinued. The need is for more facilities for the intensive care and treatment of the psychiatric patient and this could best be accomplished, extramurally, by the growth and development of mental health clinics and, intramurally, by the organization and development of psychiatric units in general hospitals as well as by the continuance of the private psychiatric hospital. Psychiatric units in general hospitals, as well as private psychiatric hospitals, should be integral parts of the communities which they serve. This has not been true in the past, but progress is being made in making these units and the hospitals bed partners of organized medicine as a whole.

Private psychiatric hospitals in the United States number 296. This represents 2% of psychiatric beds in the United States. These private hospitals admit 76,000 patients annually, 46,000 of which are first admissions. State hospitals admit 188,000 patients, approximately 120,000 of which are first admissions. These significant figures reflect the importance of early and vigorous psychiatric treatment, thereby restoring many citizens to the community as productive members who might otherwise have been lost to society. Organized medicine should be, and is able to, look to the private psychiatric hospital for fruitful work in the fields of psychiatric research and education. The latter directed both to the public at large and to organized medicine. Furthermore, psychiatric emergency service furnished by the private hospital is generally unavailable from other sources within the community.

Conspicuous by its absence is the psychiatric unit in the general hospital. In the *Digest of Official Acts of the A.M.A.* 1846-1958 (p. 498) is a significant resolution, "Resolved: That the A.M.A. representatives on the Joint Commission (on the accreditation of hospitals) call to the attention of the Joint Commission that the House of Delegates recommend that general hospitals, wherever feasible, be encouraged to permit the hospitalization of suitable psychiatric patients."

It is the consensus of opinion at the present time that psychiatric units in general hospitals should enjoy the same degree of individuality as do the departments of medicine, surgery, or obstetrics. The units should consist of not more than twenty to thirty beds, coming to approximately 10% of the total community hospital bed capacity. It is known that the average hospital stay in such a psychiatric unit will vary from 7.1 to 60 days.

Statistics are becoming available which show that when private insurance carriers add mental disease coverage to their sickness benefits they can expect that claims for mental disease will amount to approximately 4% of paid benefits.

The general hospital psychiatric unit offers golden opportunities to improve communication between the psychiatrist and his general medical colleague. Interns and student nurses are afforded exposure to patients with psychiatric illnesses within the framework of general medicine so that any negative stigma attached to mental disease can be modified in the minds of young people within the field of medicine and this, in turn, can eventually lead to a healthier attitude on the part of the public. Furthermore, the hospital with a psychiatric unit becomes a better hospital in every aspect of its functioning, just as a medical service becomes a better one because of the excellence of its department of roentgenology, so too a surgical department can be a better one when it has available to it an immediate and accessible psychiatric consultation. Furthermore, this rubbing of shoulders with general medicine encourages the psychiatrist to remain a doctor of medicine in fact as well as in name.

From the in-patient psychiatric unit it is but a simple and logical step to the out-patient psychiatric clinic. Such clinics, either functioning within the community but as independent entities, or as a part of general out-patient clinics, have become loci of emotional first-aid, serving both the discharged psychiatric patient and as diagnostic and treatment centers. In those areas where psychiatric help is but limitedly available, the out-patient clinic can serve as a tool through which the consultant's time can be used most effectively to meet the community's needs.

Psychiatric rehabilitation has as its goal the restoration to useful activity of individuals who have been victims of psychic trauma sufficient to produce emotional disability. Such rehabili-

tation would include restoration of the individual to his community, his work, his associates, and his family. Steps to accomplish this goal include the night hospital, the day hospital, the sheltered workshop, the halfway house, family care, ex-patient group meetings, and after-care outpatient clinics. Such goals can be reached if there is sufficient collaboration between available social agencies, psychiatrists, general practitioners, religious and social leaders.

The medical-legal aspects of commitment laws in several states were discussed at length. Although the constitutionality of certain provisions of the Uniform Mental Health Act has been questioned, this act still serves a most useful purpose when it forms the basis upon which is built a more suitable and uniform mental health law. Laws so structured discourage the utilization of jails and policemen in the forcible hospitalization of mentally ill patients and substitute therefor a medical procedure thereby maintaining insofar as is possible the dignity and rights of the individual patient. It was agreed that a state mental health act should contain a provision for the voluntary admission of a patient to the state hospital, provisions for emergency admission to a state hospital, and should carefully distinguish between those proceedings leading to enforced hospitalization and those proceedings having to do with the declaration of the individual patient's mental competence or absence thereof. Automatic declaration of incompetency based upon hospital commitment is to be condemned.

Since the Sixth Annual Conference of Mental Health Representatives of State Medical Associations represents the most informed opinion available at this time concerning matters of mental health, it is interesting to note how mental health programs in Arizona measure up to those of the remaining United States.

Our state hospital, under Doctor Samuel Wick's direction, has certainly attained and maintained a close liaison with the community generally and the medical profession specifically. Open House days at the hospital have been held to permit the citizens to observe at first hand what is being done at the state hospital level in Arizona to diagnose and treat mentally ill patients. For the past several years, one meeting of the Maricopa County Medical Society has been held annually at the state hospital. Very recently a two-day meeting was held at the state

hospital for general practitioners. This psychiatric seminar proved a most effective method for improving the relationship between the mentally ill patient and the physician who first sees the patient, namely the family doctor. Improving this relationship can lead to more effective therapeutics and disease prevention in the field of mental health.

On the debit side of the state hospital ledger, is the fact that the institution is overcrowded and understaffed. Salaries are miserably low as witness that of the superintendent, whose salary is the lowest among superintendents of several of the western states. The hospital's being an integral part of the community may have come about by way of fortuitous circumstances rather than by farsighted planning in that the hospital could not help but to have been incorporated into the rapidly expanding city limits.

There is but one psychiatric hospital in the entire state of Arizona and it manifests topnotch thinking and orientation in such hospitals today. Carefully controlled and supervised research programs have been carried out. The hospital serves as a focal point for dissemination of psychiatric knowledge, both to the specialist and to the general practitioner. Prominent men in the field of psychiatry are brought in by the hospital at periodic intervals and both the specialists in psychiatry and men in other fields of medicine attend these lectures and demonstrations. This hospital is also the site of a ten-week sustained and intensive psychiatric seminar sponsored by the Western Interstate Commission for Higher Education for general practitioners and specialists in fields other than psychiatric medicine. The faculty for this seminar is made up of active staff members of the hospital. The hospital provides emergency service and through its active staff supplies speakers who appear before lay groups. The close communication which exists between the hospital staff members and the medical profession at large is well documented by the fact that the hospital staff is open to members in good standing of the local and state medical societies. The versatility of the hospital's therapeutic armamentarium is evidenced by the availability therein of all forms of somatic therapies as well as ancillary services such as occupational therapy, recreational therapy, and social services. At times the closeness of the hospital to the community has been uncomfortable, particularly when it has been necessary to

change zoning restrictions so that hospital resources might be expanded; but just as that closeness brought opposition, so too it brought the support necessary for the zoning changes.

Psychiatric services in general hospitals in Arizona are essentially nil. Although several hospitals in the state identify themselves as accepting psychiatric patients, personal communications indicate that they do so only under the most stringent rules and regulations; these have become even more restraining during recent times when unfortunate accidents have led to adverse court decisions directed against the hospitals in relationship to psychiatric patients. Nor does the Arizona Hospital Service, the so-called "doctors' plan for health insurance," cover emotional illness.

Arizona is fortunate in having qualitatively excellent, though quantitatively severely inadequate, out-patient psychiatric facilities for children. The only out-patient clinic for adults is sponsored by the state hospital and, again, is totally inadequate to meet the present need.

Federally sponsored vocational rehabilitation services are available within the state. In addition, rehabilitation services for epileptics have recently become available and it is hoped that this program will eventually become self-supporting and may even serve as a sponsor for similar such centers in other counties of this state. Day hospitals, night hospitals, and halfway houses, which play such an important role in rehabilitation are not available in Arizona.

Two years ago, with the backing of the state medical society and with the hard work and support of lay groups, a mental health act was put through the legislature, patterned largely after the Uniform Mental Health Code.

So it would seem that Arizona measures up quite well in many aspects to the nation as a whole. The most serious deficits exist in the areas of out-patient clinic facilities, in-patient child care centers, and the day-night hospitals.

But rather than looking to further attainments, let us maintain what we have by directing our attention to the salary scale at the state hospital which could cost us many difficult-to-replace, trained personnel. Also to insure our not being looked upon as talking out of both sides of our mouths at the same time, let's see to it that the Arizona Hospital Service recognizes mental illness as a medical disease worthy of being covered by Blue Cross and Blue Shield hospital plans.

T. Richard Gregory, M.D.

BLUE SHIELD

Like a somewhat wayward child, Blue Shield often plays the role of favorite whipping boy for the doctors who created it. Wherever several physicians are gathered together — in staff room, committee meeting or on the second tee — someone is certain to take out after the local Blue Shield Plan.

When the definitive history of prepayment is written, perhaps one may trace a falling rate of divorce among American physicians who have worked out so many of their frustrations, not on their wives, but on their Blue Shield Plans.

Some Blue Shield administrators confess to a wry satisfaction in all this — recognizing that a parent is always fussier with his own offspring than with a child for whom he has no emotional affinity.

Blue Shield is a vast community umbrella designed to ward off the rain of medical adversity which falleth alike upon the just and the unjust. It serves the need of the average man as best it may, but it sometimes falls a little short of the special needs or wishes of the individual patient and his doctor.

In these perilous times, when the Forand philosophy seems to have so thoroughly infected the politicians of both parties, American medicine has reasons more apparent than ever before to honor those medical pioneers who built Blue Shield, and to support the civic and professional leaders who today are working so hard to make Blue Shield an ever more effective instrument.

None can doubt that without the reality of a strong and growing Blue Shield movement during the 1950's, America would long since have had universal compulsory health insurance. And few today would dispute the proposition that if American medicine escapes the thrall of state medicine during the 60's, it will have the voluntary prepayment movement — chiefly Blue Shield — to thank for its good fortune.

Let's all keep a closer eye on Blue Shield — not merely to discern the motes in its eye — but to encourage it to do the best job it can do for us and for the American people.

BLUE SHIELD ANNUAL MEETING

At the annual meeting of Arizona Blue Shield, William Payne, M.D., Tempe, was elected president of the organization, succeeding Arthur G. Stevenson, M.D., Phoenix. Other elected of-

ficials of the non-profit medical-surgical plan were Woodson C. Young, M.D., Phoenix, president elect; Ian M. Chesser, M.D., Tucson, vice president; Carl A. Holmes, M.D., Phoenix, secretary; and Robert Williams, vice president First National Bank, Phoenix, treasurer. Re-elected to the Blue Shield board of directors were Miguel A. Carreras, M.D., Tucson; Dr. Chesser; C. Thomas Read, M.D., Phoenix; and Mason Warren, secretary of the Maricopa County AFL-CIO; Williams was also elected to the board.

Elected to the professional committee were Charles VanEpps, M.D., Phoenix; Lindsay E. Beaton, M.D., Tucson; E. Henry Running, M.D., Phoenix; and Charles E. Henderson, M.D., Phoenix. Dr. Beaton was also elected president of the Arizona Medical Association, succeeding D. W. Melick, M.D., Phoenix.

Annual reports were given by Dr. Stevenson, out-going president, and L. Donald Lau, executive director of the plan. Dr. Stevenson emphasized the need for positive action in combatting the Forand Bill and similar pieces of proposed legislation. Other high points of their reports were the following: Of the \$3,198,000 taken in as income during 1959 by Blue Shield, \$2,765,000 of it went to doctors in payment for care of Blue Shield subscribers. Operating expenses for the plan reached an all-time low of 9.9%. Membership in Arizona for the first time went over the 200,000 mark in Blue Shield, reaching 201,596 people.

The annual meeting of the Blue Cross board of directors, the hospitalization portion of the program was held May 22, in Phoenix.

BOARD OF MEDICAL EXAMINERS

The Board of Medical Examiners of the State of Arizona at a regular meeting held Saturday, April 16, 1960, issued certificates to practice medicine and surgery in this state to the following doctors of medicine:

Brazie, Robert Willard, (GP), 218 Stetson Drive, Scottsdale, Arizona.

Brown, Herbert C., (GP), 3138 East McDowell Road, Phoenix, Arizona.

Clothier, Barry Allen, (GP), Phelps Dodge Corp., Hospital Dept., Bisbee, Arizona.

Cooper, Clark Neil, (GS), 927 West 4th Street, Waterloo, Iowa.

Cutler, Clair Riley, (GP), Maricopa County Hospital, Phoenix, Arizona.

Duncan, Perry E., (Oph), Scottsdale Medical Building, Scottsdale, Ariz.

DYSON, James Everett, (Pd), 4025 East Colter Street, Phoenix, Arizona.

Farnsworth, Stanford Franklin, (PH), 116 South 12th Avenue, Phoenix, Arizona.

Enggas, John Thomas, (GP), Douglas Hospital, Douglas, Arizona.

Erd, Quentin Lane, (GP), 127 East Fifth Street, Benson, Arizona.

Estes, John Earle, Jr., (I), 461 West Catalina Drive, Phoenix, Arizona.

Hancock, Robert Edwin, (GS), 1004 West Palo Verde Drive, Phoenix, Arizona.

Henson, Rex Thomas, (S), P. O. Box 561, Mesa, Arizona.

Lahti, Carl Robert, (GP), 7725 North Fifth Ave., Phoenix, Arizona.

Lenzner, Jacob Samuel, (I), 14674 Ryan Street, Panorama City, California.

Linkner, Laurence M., (S), 966 Fisher Building, Detroit 2, Michigan.

Louis, Herbert Johnson, (Or), 1830 78th Court, Elmwood Park 35, Illinois.

McGahey, William Buckles, (GP), 703 Division Street, Webster City, Iowa.

Marzouk, Baroukh Y., (GP), St. Joseph's Hospital, Phoenix, Arizona.

Parks, William Stacy, (GP), Hayden Clinic, Hayden, Arizona.

Popoff, Frederic E., (GP), Eloy Medical Center, Eloy, Arizona.

Presbrey, Richard B., (GP), Payson Clinic-Hospital, Payson, Arizona.

Riker, Aaron Dudley, (Oph), 1012 Riker Building, Pontiac 15, Michigan.

Sanderson, Willis, (Anes), Parkland Memorial Hospital, 5201 Harry Hines Boulevard, Dallas, Texas.

Schrieber, Melvyn Hirsh, (Rnt), U.S.A.H., Fort Huachuca, Arizona.

Sexton, Jack Martin, (GP), Hayden Clinic, Hayden, Arizona.

Siegel, Irving, (ObG), 2755 West 15th Street, Chicago 8, Illinois.

Smith, Euclid Monroe, (I-Rheu), 1103 Medical Arts Building, Hot Springs, Ark.

Snyder, Frederick Preston, (Or), 926 East McDowell Road, Phoenix, Arizona.

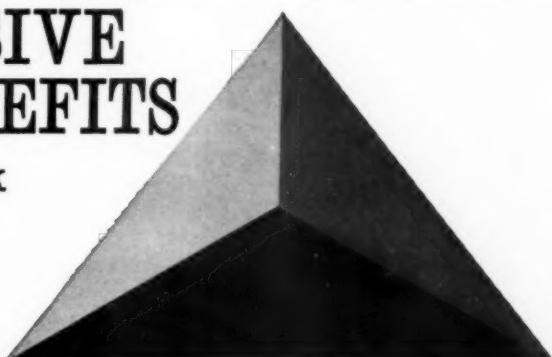
Sorensen, Elmer Mork, (Oph), 502 Reed Street, Red Oak, Iowa.

Strachan, Willis Lloyd, (P), 4115 University Way, Seattle 5, Washington.

Wendt, Hilbert Paul, (GP), 318 North La Brae, Thief River Falls, Minn.

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Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. 80:481 (Oct.) 1958.
2. Ferrand, P. T.: Minnesota Med. 41:853 (Dec.) 1958.
3. Mathews, F. P.: Am. J. Psychiat. 114:1034 (May) 1958.

SEARLE

*Future Medical Meetings
and Postgraduate Education*

**2nd ANNUAL NORTHERN
ARIZONA MEDICAL SEMINAR**

Arizona State College

Flagstaff

PROGRAM

Thursday, August 4

9:00-9:30 a.m. — Registration, Education Building, Arizona State College.

9:30-10:30 a.m. — Nephroses in Infancy, Childhood, and Adult Life. Robert Kark, M.D.

10:30-11:30 a.m. — X-Ray Diagnoses Encountered in the Aging GI Tract. Vincent P. Collins, M.D.

11:30-11:45 — Coffee.

11:45-12:45 — Endometrioses. Ralph A. Reis, M.D.

1:00-2:00 p.m. — Luncheon.

2:15-3:15 p.m. — Problems in Peritonitis. Champ Lyons, M.D.

3:15-4:15 p.m. — Disorders of the Clotting Mechanism. E. C. Beatty, Jr., M.D.

Friday, August 5

9:00-10:00 a.m. — Upper Gastro-Intestinal Hemorrhage. Eddy D. Palmer, M.D.

10:00-11:00 a.m. — Surgical Treatment of Diseases of the Liver. Champ Lyons, M.D.

11:00-11:15 a.m. — Coffee.

11:15-12:15 a.m. — Laboratory Aids in the Diagnoses of Pediatric Anemias. E. C. Beatty, Jr., M.D.

12:30-1:45 p.m. — Luncheon and Discussion.

2:00-3:00 p.m. — Recent Advances in the Understanding and Management of Renal Disease. Robert Kark, M.D.

3:00-4:00 p.m. — Diabetes and Pregnancy. Ralph A. Reis, M.D.

7:30 p.m. — Cocktail Hour. Banquet. Dance.

Saturday, August 6

9:00-10:00 a.m. — When Is the Diagnoses of Cancer Early? Vincent P. Collins, M.D.

10:00-11:00 a.m. — Gastritis with Emphasis on its Histopathological Significance. Eddy D. Palmer, M.D.

11:00-11:15 a.m. — Coffee.

11:15-12:15 a.m. — Special Problems in the Management of Erythroblastosis Fetalis. E. C. Beatty, Jr., M.D.

A.A.G.P. accredited. Registration fee: \$35.

**NINTH ANNUAL
ARIZONA CANCER SEMINAR**

The Arizona Division of the American Cancer Society will hold its Ninth Annual Cancer Seminar January 12, 13 and 14, 1961, at the Tidelands Motor Inn, Tucson, Arizona.

The faculty will be composed of lecturers in the fields of chemotherapy and biochemistry, environmental factors as they relate to cancer, endocrinology, bone pathology, virology, immunology, supravoltage and perfusion techniques, and the present status of cancer research in the United States, England and on the continent.

REGIONAL SUMMER MEETINGS

July 18-21 — New Mexico Chapter, American Academy of General Practice, Ruidoso Summer Clinic, Ruidoso, New Mexico.

July 20-21 — Rocky Mountain Cancer Conference, Denver, Colorado.

July 21-23 — Dermatology for General Practitioners, University of Colorado Medical Center, Denver, Colorado.

July 27-29 — American Academy of Pediatrics, Regional Meeting, Denver, Colorado.

August 10-13 — Rocky Mountain Radiological Society, Denver, Colorado.

August 11-13 — Medical Statistics for the Clinician "What Numbers Can You Believe?", University of Colorado Medical Center, Denver, Colorado.

August 15-19 — Western Cardiac Conference, Denver, Colorado.

August 31-September 6 — Pediatrics, Estes Park, Colorado.

September 7-10 — Annual Meeting, Nevada State Medical Association, Las Vegas, Nevada.

September 7-10 — Annual Session, Wyoming State Medical Society, Moran, Wyoming.

September 11-14 — American College of Obstetrics and Gynecology, Denver, Colorado.

September 14-17 — Annual Session, Colorado State Medical Society, Estes Park, Colorado.

September 21-23 — Annual Session, Utah State Medical Association, Salt Lake City, Utah.

UNIVERSITY OF CALIFORNIA POSTGRADUATE PROGRAMS

July 17-20 — General Pediatrics, University Conference Center, Lake Arrowhead.

July 20-24 — Advanced Seminars in Internal Medicine, University Conference Center, Lake Arrowhead.

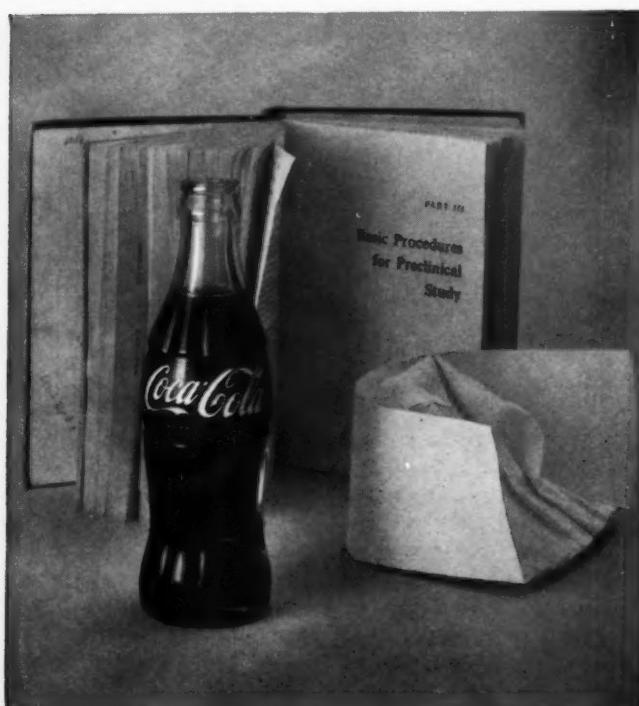
July 25 and 26 — Dermatology in Office Practice.

July 27-31 — Advanced Seminars in Dermatology — University Conference Center, Lake Arrowhead.

August 3-5 — Anesthesia for Special Procedures.

August 17 and 18 — Arthritis and Rheumatism.

August 26 and 27 — Obstetrical procedures, Complications and Advances.



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the unyielding hours,
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"pause that refreshes"
with ice-cold Coca-Cola
often puts things
into manageable order.

